

## **Close Out Documents**

### **AP-74 – 4610 Clayton St.**

Asbestos Abatement and Structural Demolition

#### **Prepared for:**

Kiewit Infrastructure Co.  
Attn: Megan Wood  
160 Inverness Drive West, Suite 110  
Englewood CO 80112

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# 1. Closeout Letter

February 11, 2019

Kiewit Infrastructure Co.  
160 Inverness Drive West, Suite 110  
Englewood, CO 80112

**Re: SSCR AP-74 4610 Clayton St.**

Dear Kiewit Infrastructure Co.

This letter is confirm that all the work associated with the asbestos abatement and demolition of the structure located at 4610 Clayton St. Denver, CO 80216, also referred as parcel AP-74, is complete.

The scope of work included asbestos abatement, demolition of an 861 square foot residential structure, demolition of a 356 square foot detached garage, and the removal of the curb and driveway. No Regulated Building Materials (RBMs) were found on the site.

This document has been prepared to furnish you with key documents associated with this project for your records.

On behalf of the JKS Industries team, we would like to extend our appreciation to working with you on this project and look forward to working with you in the future.

Regards,



Jeffrey Knight,  
President

## 2. CDPHE Asbestos Abatement Permit

## **ASBESTOS ABATEMENT PERMIT**

This permit is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008, the Colorado Air Pollution Prevention and Control Act (25-7-101 or 25-7-501 et seq., C.R.S.) and the following provisions. It is only for the purpose of allowing asbestos abatement.

### **ADDITIONAL PERMIT PROVISIONS:**

By performing work under this permit the abatement contractor agrees that the Division may revoke or suspend this permit should the Division find that the contractor:

- has violated or has aided and abetted in the violation of 25-7-101 or 25-7-501 et seq., C.R.S. or Regulation No. 8, Part B, or an order of the Division or Commission,
- has failed to meet any permit and notification requirement or failed to correct any violations cited by the Division during any inspection within a reasonable period of time, as may be determined by the Division,
- has used misrepresentation or fraud in obtaining this permit, or,
- has committed any act or omission which does not meet generally accepted standards of the practice of asbestos abatement.

As a contractor, you may be subject to other licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

### **THE ORIGINAL PERMIT MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This asbestos abatement permit is valid beginning 10/23/2018 through 11:59 PM on 10/22/2019.

The actual scheduled work dates are from 12/20/2018 through 1/4/2019.

Approval issued on: 11/5/2018

Record number: 143025

**Notice Number: 18DE7238A-20**

Variance: None

Comments: None

For the location specified below:

**AP-74 residential  
Basement  
4610 Clayton St.  
Denver  
Denver County**

This permit has been issued to:

**JKS Industries, LLC  
747 Sheridan Blvd Unit 9A  
Lakewood, CO 80214**

Fee paid:

Check number:

Project Supervisor:

**Andre M. Williams**

Cerification No.: 15776

Project AMS:

**Logan Greenfield**

Cerification No.: 20715

Project Manager:

**WAIVED**

Certification No.: 15045

Issued by: CA





Colorado Department  
of Public Health  
and Environment

# ASBESTOS ABATEMENT NOTIFICATION and PERMIT APPLICATION FORM

FEE MUST ACCOMPANY THIS FORM. INCOMPLETE APPLICATIONS WILL BE RETURNED.

<b>Single Family Residential Dwelling (SFRD)</b> > 50 LF or 32 SF or a 55-gal. drum, but ≤ 260 LF or 160 SF or a 55-gallon drum	<input type="checkbox"/> [code 200] \$0 <input type="checkbox"/> [code 205] \$60 <input type="checkbox"/> [code 210] \$60 <input type="checkbox"/> [code 230] \$180 <input type="checkbox"/> [code 290] \$300 <input type="checkbox"/> [code 265] \$420 <input type="checkbox"/> [code 180/280] \$55	<b>Public and Commercial Building, School, and Single-Family Residential Dwelling:</b> > 260 LF or 160 SF or a 55-gallon drum	<input type="checkbox"/> [code 100] \$0 <input type="checkbox"/> [code 105] \$80 <input type="checkbox"/> [code 110] \$80 <input type="checkbox"/> [code 130/232] \$400 <input type="checkbox"/> [code 190/292] \$800 <input type="checkbox"/> [code 165/267] \$1200 <input checked="" type="checkbox"/> [code 172] \$80
Courtesy Notice Non-Public Access Notice (Opt Out) Notice 30-Day Permit 90-Day Permit 365-Day Permit Notice or Permit Transfer	<input type="checkbox"/> [code 100] \$0 <input type="checkbox"/> [code 105] \$80 <input type="checkbox"/> [code 110] \$80 <input type="checkbox"/> [code 130/232] \$400 <input type="checkbox"/> [code 190/292] \$800 <input type="checkbox"/> [code 165/267] \$1200 <input checked="" type="checkbox"/> [code 172] \$80	Courtesy Notice Non-Public Access Notice Notice 30-Day P&C/SFRD Permit 90-Day P&C/SFRD Permit 365-Day P&C/SFRD Permit Phase <u>2</u> of Multiple Phase Permit #	Submit form to: Permit Coordinator Colorado Dept. of Public Health and Environment AP/CD-IE-B1 4500 Cherry Creek Drive South Denver, CO 80246-1530 Phone: 303-692-3100 Fax: 303-782-0278 asbestos@state.co.us

<b>Abatement Contractor</b> Company Name: JKS Industries Street Address: 747 Sheridan Blvd. Unit 9A City: Lakewood Telephone #: (303) 238-0207 Project Supervisor: Andre Williams		<b>Abatement Site</b> Building Name: AP-74 Residential Specify location in the building where work will take place (e.g. floor, room, wing, etc.): Basement Street Address: 4610 Clayton Street City: Denver Building Contact: Doug Messier		<b>Building Owner</b> Owner Name: CDOT Contact: Anthony Davito Street Address: 2000 S. Holly St. City: Denver	
Fax #: (303) 238-0452 CO. Cert #: 15776		State: CO Zip code: 80214		County: Denver Zip code: 80216 Cell Phone #: (817) 320-6749	
<b>Project Personnel</b> CO Project Mgr. Name: See Project Manager Waiver form from CDOT Cell Phone #: ( ) CO Project Designer Name: Daniel Beecke Cell Phone #: (303) 232-2660 Consulting Firm Name: All Phase Consulting, Inc. A.M.S. Name: Logan Greenfield			<b>Project Information</b> Start Date: 12/20/2018 End Date: 1/4/2019 Start Time: 6:30am AM End Time: 5:00 PM PM Check the day(s) of operation: Su M Tu W Th F Sa <input type="checkbox"/> <input checked="" type="checkbox"/>		
Cell Phone #: (719) 545-0375 CO A.M.S. Cert #: 20715		Emergency? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Type of ACM: TSI, Texture, VAT, etc.		Linear Feet / Type: 25 SF of Paper Duct Wrap Square Feet / Type: 55 gal. Drums	
Cell Phone #: ( ) CO Project Designer #: 1947 Registration #: 15979		Landfill Name: Denver Arapahoe Disposal Street Address: 3500 South Gun Club Road City: Aurora		<b>Disposal Site</b> State: CO Zip code: 80018	
Cell Phone #: ( ) CO Project Designer #: 1947 Registration #: 15979		<b>CDPHE Use Only</b> Postmark or Delivery date: 10/18/18 Form of Payment & #: <u>101818</u> Approved by: <u>[Signature]</u> PM req'd? Y N <u>(W)</u>		Permit #: <u>180238142014935</u> Record #: <u>180238142014935</u> Date Issued:	

Please describe below the work practices and procedures to be employed in conducting the abatement of asbestos. **BE SPECIFIC.** Indicate type(s) of ACBM to be abated (e.g. VAT, ceiling tile, TSI, etc.). Use another page if necessary.

This Phase 2 project will consist in removal and disposal of 25 SF of paper duct wrap under a secondary Glovebag containment. The friable materials will be removed using small hand tools (carpenters hammer, cats claw, crow bar and chisels) the material will be kept wet (1500 psi airless sprayer with amended water). The material will be enclosed in a glovebag and a secondary containment, will employ negative air pressure, a two chamber decontaminant with HEPA vacuum and wet rags. This work will be completed per the Appendix A small scale projects guide lines. All work will be in accordance with Colorado Regulation #8 Part B. The secondary glove bag containment will be inspected and cleared by a State Certified AMS.

### 3. CDPHE Demolition Permit

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## DEMOLITION APPROVAL NOTICE

This approval notice is granted subject to Colorado Air Quality Control Commission Regulation No. 8, Part B, adopted December 21, 2007, and effective January 30, 2008 and the Colorado Air Pollution Prevention and Control Act C.R.S. (25-7-101 and 25-7-501 et seq). This notice signifies that the structure was inspected for asbestos, luminous exit signs (containing radioactive material), and Ozone-Depleting Refrigerants and the demolition contractor has properly notified the Colorado Department of Public Health and Environment pursuant to Regulation No. 8, Part B.

As a contractor, you may be subject to other demolition licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division, strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 12/26/2018.

The actual scheduled work dates are from 12/26/2018 through 1/31/2019.

Approval issued on: 12/27/2018

Record number: 144521

**Notice Number: 18DE8619D**

For the location specified below:

**AP-74 Residential**

**4610 Clayton St.**

**Denver**

**Denver County**

Fee Paid: \$55.00

Check number: 5890

Asbestos Building Inspector:

**Logan Greenfield**

Cerification No.: 20715

Inspection Date: 12/19/2018

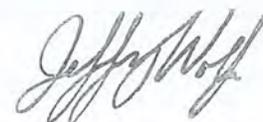
This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by:





# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM  
INCOMPLETE APPLICATIONS WILL BE RETURNED

(Notice will be mailed to the demolition contractor unless specified otherwise)

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 55.00  
(See instruction #1 on reverse side)

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public  
Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive  
South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

Colorado Department  
of Public Health  
and Environment

Demolition Contractor	Company Name: JKS Industries		Building Name: AP-74 Residential		
	Street: 747 Sheridan Blvd. #9A		Square footage of footprint of facility or portion of facility to be demolished 861		
	City: Lakewood	State: CO	Zip Code: 80214	Street: 4610 Clayton St.	
	Telephone # (303) 238-0207	Fax # (303) 238-0452	City: Denver		Zip Code: 80216
	Project Manager: Jeffrey Knight	Cell Phone # (720) 402-4410	County: Denver		Proposed Completion Date 1/31/2019
	I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.		Proposed Start Date 12/26/2018		Method/Mean of Demolition: <input checked="" type="checkbox"/> Wrecking <input type="checkbox"/> Burning <sup>†</sup> <input type="checkbox"/> Implosion <input type="checkbox"/> Moving <input type="checkbox"/> Other, specify:
	Signature: 	Print Name: Jeffrey Knight	† Burning requires additional authorization - Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator		
Landfill Receiving Building Debris: Denver Arapahoe Disposal Site					
Asbestos Removal Contractor	General Abatement Contractor (GAC) JKS Industries		Owner's Name: CDOT		
	CDPHE Asbestos Permit # 18DE7238A-20	Total Quantity of Asbestos Removed 25 SF	Street: 2000 S Holly St.		
	Date Removal Completed 12-18-18	Telephone # (303) 238-0207	City: Denver	State: CO	Zip Code: 80222
	Type(s) of Asbestos-Containing Material Removed: 25 SF Paper Duct Wrap		Contact's Name: Anthony DaVito	Telephone # (303) 512-5900	
Certified Asbestos Inspector Certification	With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: (check appropriate box(es)):				
	<input type="checkbox"/> Vinyl asbestos floor tile (VAT) <input type="checkbox"/> VAT mastic <input checked="" type="checkbox"/> Tar/asphalt impregnated roofing <input type="checkbox"/> Asphaltic pipe coatings <input type="checkbox"/> Spray-applied tar coatings <input type="checkbox"/> Caulking <input type="checkbox"/> Glazing <input type="checkbox"/> Other, specify:				
	Signature: (In Blue Ink) 	Printed Name: Logan Greenfield			
Date of Final Inspection 12-19-18	CO Cert # 20715	Expiration Date Oct. 18, 2019	Telephone # (719) 545-0375	Cell Phone # (719) 250-0036	
Building Owner or Contractor	I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).				
	CHECK THE APPROPRIATE BOX:				
	<input type="checkbox"/> Building Owner	<input checked="" type="checkbox"/> Contractor	<input type="checkbox"/> Other	Date: 12/14/18	
Signature: 		Print Name: JEFFREY KNIGHT			

**THIS BOX IS FOR CDPHE USE ONLY:**

Postmark or Hand Delivery Date: 12/20/18	Approved By:	Code: <input checked="" type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380
Form of Payment & #: check # 5890 / 55.00	Permit #: 8028091	Record #: 44521
		Date Issued:

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

APPROVED  
DATE 12/24/18 CDPHE

DEC 20 2018

APCD Stationary Sources  
Rev. 01/30/08

**Colorado Department of Public Health and Environment**  
Air Pollution Control Division – Indoor Environment Program – Asbestos/IAQ Air Unit  
4300 Cherry Creek Drive South, APCD-IE-B1  
Denver, Colorado 80246-1530  
Phone: 303-692-3100 – Fax: 303-782-0278  
E-mail: asbestos@state.co.us

## DEMOLITION APPROVAL NOTICE

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As a contractor, you may be subject to other demolition licenses and permits, depending on the requirements of the county and municipality in which the work is being performed. The Colorado Department of Public Health and Environment, Air Pollution Control Division, strongly suggests that you check with county and municipal authorities in order to determine any other local building/permitting requirements that must be met.

**Please note that certain asbestos-containing materials (ACM) may remain in the structure during demolition. Therefore, any demolition debris left behind after the completion of post-demolition site cleanup may constitute a "reason to know of asbestos-contaminated soil" at the site, subject to the requirements of Section 5.5 of the Solid Waste Regulations (6 CCR 1007-2, Part 1).**

**THE ORIGINAL APPROVAL NOTICE MUST BE POSTED ON SITE AT ALL TIMES.**

*Immediately notify the Asbestos/IAQ Unit of project modifications by fax (number above) or e-mail (address above) and the appropriate county health department by fax. Project modifications include changes in the scope of work or the scheduled work dates, etc.*

This demolition approval notice is valid beginning 12/26/2018.

The actual scheduled work dates are from 12/26/2018 through 1/31/2019.

Approval issued on: 12/27/2018

Record number: 144523

**Notice Number: 18DE8620D**

For the location specified below:

**AP-74 Garage**

**4610 Clayton St.**

**Denver**

**Denver County**

Fee Paid: \$55.00

Check number: 5890

Asbestos Building Inspector:

**Logan Greenfield**

Cerification No.: 20715

Inspection Date: 12/19/2018

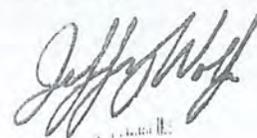
This notice has been issued to:

**JKS Industries, Inc.**

**747 Sheridan Blvd. Unit 9A**

**Lakewood, CO 80214**

Issued by:





# DEMOLITION NOTIFICATION APPLICATION FORM

APPLICATION FEE MUST ACCOMPANY THIS FORM  
INCOMPLETE APPLICATIONS WILL BE RETURNED

(Notice will be mailed to the demolition contractor unless specified otherwise)

Fee: \$50 + \$5 per 1000 ft<sup>2</sup> of area to be demolished = \$ 55.00  
(See instruction #1 on reverse side)

Submit form to:  
Permit Coordinator  
Colorado Dept. of Public  
Health and Environment  
APCD-IE-B1  
4300 Cherry Creek Drive  
South  
Denver, CO 80246-1530  
Phone: 303-692-3100  
Fax: 303-782-0278  
Asbestos@state.co.us

Colorado Department  
of Public Health  
and Environment

<b>Demolition Contractor</b>	Company Name: <b>JKS Industries</b>		Building Name: <b>AP-74 Garage</b>		
	Street: <b>747 Sheridan Blvd. #9A</b>		Square footage of footprint of facility or portion of facility to be demolished <b>356</b>		
	City: <b>Lakewood</b>	State: <b>CO</b>	Street: <b>4610 Clayton St</b>		
	Telephone # <b>(303) 238-0207</b>	Fax # <b>(303) 238-0452</b>	City: <b>Denver</b>	County: <b>Denver</b>	Zip Code: <b>80216</b>
	Project Manager: <b>Jeffrey Knight</b>		Proposed Start Date <b>12/26/2018</b>		Proposed Completion Date <b>1/31/2019</b>
	I certify that the Certified Asbestos Building Inspector has informed me about any remaining asbestos-containing materials in the facility to be demolished.		Method/Mean of Demolition: <input checked="" type="checkbox"/> Wrecking <input type="checkbox"/> Burning <sup>†</sup> <input type="checkbox"/> Implosion <input type="checkbox"/> Moving <input type="checkbox"/> Other, specify:		
	Signature: 	Print Name: <b>Jeffrey Knight</b>	<sup>†</sup> Burning requires additional authorization – Please call (303) 692-3100 and ask to speak to the Open Burning Permit Coordinator		
Landfill Receiving Building Debris: <b>Denver Arapahoe Disposal Site</b>					
<b>Asbestos Removal Contractor</b>	General Abatement Contractor (GAC) <b>N/A</b>		Owner's Name: <b>CDOT</b>		
	CDPHE Asbestos Permit #	Total Quantity of Asbestos Removed	Street: <b>2000 S Holly St.</b>		
	Date Removal Completed	Telephone #	City: <b>Denver</b>	State: <b>CO</b>	Zip Code: <b>80222</b>
	Type(s) of Asbestos-Containing Material Removed:		Contact's Name: <b>Anthony DaVito</b>		Telephone # <b>(303) 512-5900</b>
<b>Certified Asbestos Inspector Certification</b>	With my signature below, I certify that I possess current AHERA accreditation and state of Colorado certification as an Asbestos Building Inspector. I also certify that I have thoroughly inspected the facility to be demolished, as listed in the Demolition Site block above, sampled all suspect materials, had all samples analyzed for the presence of asbestos by a NVLAP-accredited laboratory, and have determined that no Regulated ACM exists anywhere in the facility.* I also certify that I have informed the owner/operator of the facility or the demolition contractor that any asbestos-containing material allowed to stay in the facility must remain non-friable during demolition. Specify type(s) of ACM remaining, below: (check appropriate box(es)):				
	<input type="checkbox"/> Vinyl asbestos floor tile (VAT) <input type="checkbox"/> VAT mastic <input type="checkbox"/> Tar/asphalt impregnated roofing <input type="checkbox"/> Asphaltic pipe coatings <input type="checkbox"/> Spray-applied tar coatings <input type="checkbox"/> Caulking <input type="checkbox"/> Glazing <input type="checkbox"/> Other, specify:				
	Signature: (In Blue Ink) 		Printed Name: <b>Logan Greenfield</b>		
	Date of Final Inspection <b>12-19-18</b>	CO Cert # <b>20715</b>	Expiration Date <b>Oct. 18, 2019</b>	Telephone # <b>(949) 545-0375</b>	Cell Phone # <b>(719) 250-0036</b>
<b>Building Owner or Contractor</b>	I verify that all refrigerants from air conditioning/refrigeration appliances have been properly recovered in accordance with AQCC Regulation No. 15 (for information on CFC requirements call 692-3100). I further verify that all luminous exit signs (containing radioactive material) have been disposed of in accordance with 6 CCR 1007-1 subpart 3.6.4.3 (for information on luminous exit sign requirements call 303-692-3320).				
	CHECK THE APPROPRIATE BOX:				
	<input type="checkbox"/> Building Owner	<input type="checkbox"/> Contractor	<input type="checkbox"/> Other	Date: <b>12/19/18</b>	
Signature: 		Print Name: <b>JEFFREY KNIGHT</b>			
<b>THIS BOX IS FOR CDPHE USE ONLY:</b>					
Postmark or Hand Delivery Date: <b>12/20/18</b>		Approved By:	Code: <input checked="" type="checkbox"/> initial-310 <input type="checkbox"/> transfer-380		
Form of Payment & #: <b>check # 5890 / 55.00</b>		Permit #: <b>181086200</b>	Record #: <b>144528</b>	Date Issued:	

\* Regulated asbestos-containing materials means (a) friable asbestos-containing material, (b) Category I nonfriable ACM that has become friable, (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this regulation. Note: Asbestos-containing sheet vinyl and linoleum must be properly abated/removed prior to demolition.

APPROVED  
DATE: 12/24/18 CDPHE

DEC 20 2018  
APCD  
Stationary  
Sources

## 4. JKS Asbestos Certifications



Colorado Department  
of Public Health  
and Environment

## General Abatement Contractor

This certifies that

**JKS Industries, LLC**

**GAC No.: 18531**

has met the certification requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos abatement activities in the state of Colorado.

**Issued: July 18, 2018**

**Expires: July 18, 2019**

  
Annette Baselo  
Authorized/APCD Representative

**SEAL**

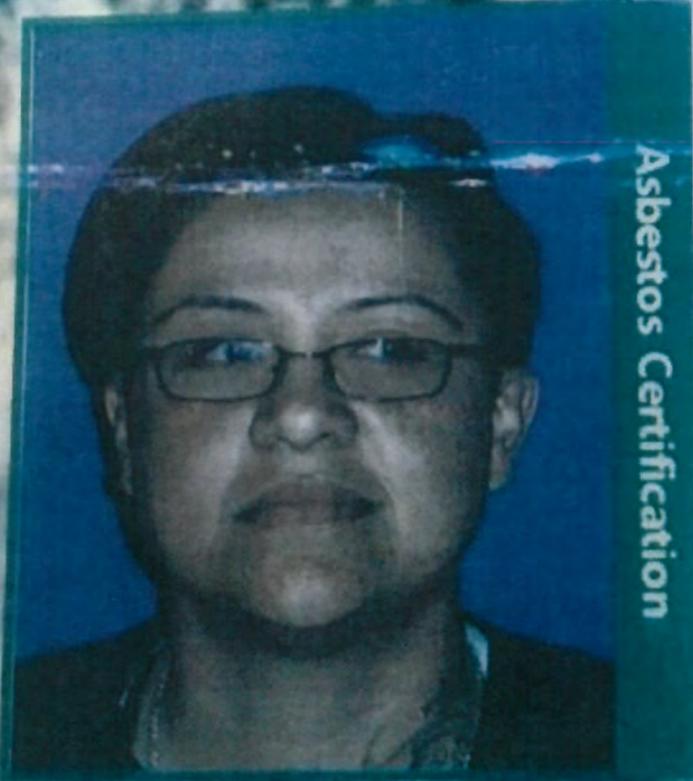
## 5. JKS Workers Asbestos Certifications

entra Medical Centers  
19 Blvd COLORADO SPRINGS, CO 80916  
19) 390-1727 Fax (719) 390-9690  
Surveillance - Asbestos

Colorado Department  
of Public Health and  
Environment



Supervisor



Asbestos Certification

Martha Yadira  
Nahle

Expires: 4/16/2019 Cert. #: 18186

Date Issued: 4/16/2018

# INTERNATIONAL



Environmental and Safety Training LLC  
720 Billings Street Unit F  
Aurora, Colorado 80011  
Phone # (720) 859-3134  
Fax # (720) 859-0660

*CERTIFIES THAT*

**YADIRA NAHLE**

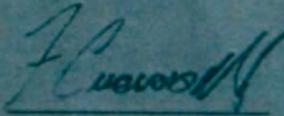
Has successfully completed  
The EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER  
COURSE for **CONTRACTOR/SUPERVISOR**  
And passed the requirements examination in that discipline

This course is EPA-Approved under Section 206 of the  
Toxic Substance Control Act (TSCA)

Course Date 04/07/2018  
No. Hours 8  
Certificate No. CO040718-2BASR  
Expires 04/07/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



  
Training Director



Respirator Fit Test

I, Martha Nahle, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 10-08-18 Fit Test Conductor: Geo Thomas

Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- MN Breathe normally through the respirator
- MN Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- MN Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- MN Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- MN Do several jumping jacks to ensure that the respirator does not come loose from your face.
- MN Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- MN Read the Rainbow Passage  
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

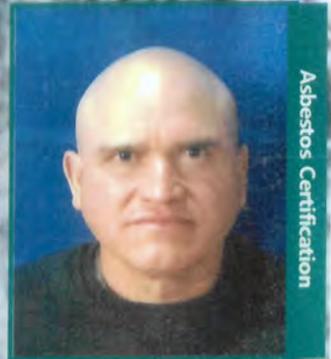
Employee Signature: Martha Nahle  
Fit Test Conductor Signature: [Signature]

Date: 10-8-18  
Date: 10-8-18

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

Alex Manuel  
Martinez-Coronel

Expires: 6/20/2019 Cert. #:24686

Date Issued: 6/20/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

**ALEX MANUEL MARTINEZ CORONEL**

Has successfully completed  
The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**  
And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 06/11/2018 - 06/14/2018

Exam Date 06/14/2018

No. Hours 32

Certificate No CO061418-02AWI

Expires 06/14/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Alex Martinez

The above individual was seen by me on 6-18-78 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was preformed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note according to CFR 1926.1101 (M)(2)(i)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

1 There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Examining Provider

*J. Raschbacher, M.D.*

Date \_\_\_\_\_

*J. Raschbacher, M.D.  
 Midtown Occupational  
 Health Services, P.C.  
 2490 W. 26th Ave., Bldg. A, Suite 300  
 Denver, CO 80211  
 303-831-9393*

### Midtown Occupational Health Services

2490 W 26th Ave Bld A Ste 300, Denver, CO 80219

**Alex, Martinez**

**ID: 0506 Age: 57 (10/10/1960)**

Gender	Male	Height	66 in	Asthma	No
Ethnicity	Hispanic	Weight	156 lb	BMI	25.2
Smoker	No			COPD	--

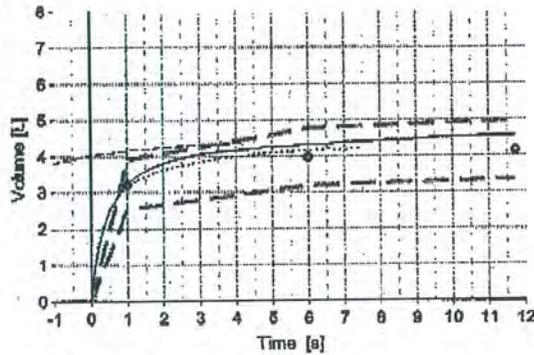
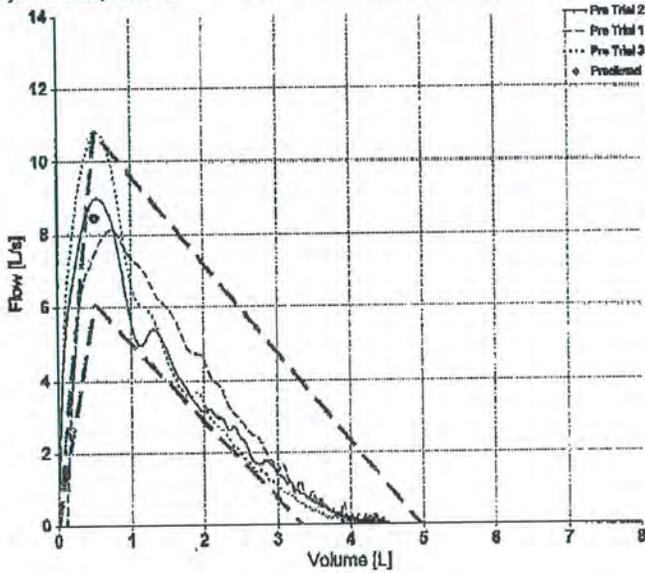
**FVC (ex only)**

**Your FEV1 / Predicted: 105 %**

Test Date	6/18/2018 12:15:39 PM	Interpretation	GOLD(2008)/Hardie	Value Selection	Best Value
Post Time		Predicted	Hankinson (NHANES III), 1999	BTPS (IN/EX)	1.09/1.02

Parameter	Pred	LLN	Pre				%Pred
			Best	Trial 2	Trial 1	Trial 3	
FVC [L]	4.15	3.34	4.54	4.54	4.37	4.18	110
FEV1 [L]	3.21	2.52	3.38	3.22	3.38	3.12	105
FEV1/FVC	0.775	0.684	0.744	0.710	0.774	0.747	96
FEF25-75 [L/s]	2.96	1.42	2.14	2.14	2.88	2.32	73
PEF [L/s]	8.45	6.09	10.79	9.01	8.12	10.79	128
FET [s]	-	-	11.7	11.7	6.8	7.3	-

Session Quality Pre C (FEV1 Var=0.16L (4.6%); FVC Var=0.16L (3.9%))  
 System Interpretation Pre Normal Spirometry



### Respirator Fit Test

I, Alex Martinez Coronell, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 06/21/2018 Fit Test Conductor: Ruben Dominguez

**Respirator Information**

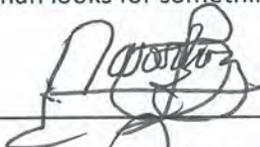
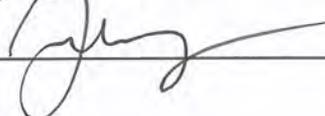
1. Manufacturer: North
2. Model: 7700M
3. Size (Circle one):      SMALL      MEDIUM      LARGE
4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature:   
 Fit Test Conductor Signature: 

Date: 06/21/18  
 Date: 06/21/2018

Colorado Department  
of Public Health and  
Environment



Worker

Asbestos Certification

**Deisy  
Arellanos Lopez**

Expires: 4/30/2019 Cert. #:24492  
Date Issued: 4/30/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

**DEISY YANETH ARELLANOS LOPEZ**

Has successfully completed  
The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**  
And passed the requirements examination in that discipline

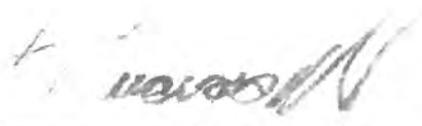
This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date            04/16/2018 - 04/19/2018  
Exam Date             04/19/2018  
No. Hours              32  
Certificate No        CO041918-07AWI  
Expires                04/19/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



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\_\_\_\_\_  
Training Director

# Colorado Occupational Medical Partners

## OSHA ASBESTOS / HAZARDOUS MATERIALS / RESPIRATOR CERTIFICATION

In accordance with OSHA regulations: \_\_\_\_\_ 29 CFR 1926.1101 Asbestos  
\_\_\_\_\_ 29 CFR 1910.120(f) Hazardous Materials  
/ \_\_\_\_\_ 29 CFR 1910.134(b) Respirator Certification

The examining physician will provide the employer with a written opinion which shall contain the following:

1. This is to certify that on this date: 5/3/18, and in accordance with regulations as indicate above, I have performed a comprehensive examination on Deisy Arellano, whose Social Security Number is \_\_\_\_\_
2. Based on my findings, I have determined that this individual  
 MAY ( ) MAY NOT wear a respirator device while performing his / her required work tasks, and  
 IS ( ) IS NOT medically cleared for work with ( ) ASBESTOS  
( ) HAZARDOUS MATERIALS
3. The results of my examination ( ) HAVE  HAVE NOT detected a medical condition which would place the employee at increased risk of material health impairment from exposure to  
 RESPIRATORY EQUIPMENT ( ) ASBESTOS ( ) HAZARDOUS MATERIALS
4. In accordance with OSHA requirements, I have informed the above-named patient of medical conditions which could result from his / her exposure to  
 RESPIRATORY EQUIPMENT ( ) ASBESTOS ( ) HAZARDOUS MATERIALS
5. In accordance with OSHA requirement, I have fully explained the results of the medical examination and laboratory tests to the above-named patient.

6. COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

THE EMPLOYEE HAS BEEN ADVISED OF THE RESULT OF THE EVALUATION AND HAS BEEN GIVEN AN EXPLANATION OF MEDICAL CONDITIONS THAT MAY RESULT FROM ASBESTOS EXPOSURE, AND OF THE INCREASED RISK OF LUNG CANCER ATTRIBUTABLE TO THE COMBINED EFFECT OF SMOKING AND ASBESTOS EXPOSURE

The complete medical examination on the above-named individual will be forwarded to the employer pending final review and interpretation of any additional medical data collected.

5/3/18  
Date

  
Examining Physician / Provider

### Respirator Fit Test

I, Deisy Yaneth Arellanos López acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 5/14/2018 Fit Test Conductor: Rubén Arango

#### Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one): SMALL MEDIUM LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)? YES NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage  
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: *Deisy Arellanos*

Date: 5/14/2018

Fit Test Conductor Signature: *Rubén Arango*

Date: 5/14/2018

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

Dennis M.  
Mejia

Expires: 3/8/2019 Cert. #:21028

Date Issued: 3/7/2018

# INTERNATIONAL



Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660

*CERTIFIES THAT*

**DENNIS MICHAEL MEJIA**

Has successfully completed

The **EPA- APPROVED AHERA ANNUAL ASBESTOS REFRESHER**  
**COURSE for WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 02/17/2018

No. Hours 8

Certificate No. CO021718-02AWR

Expires 02/17/2019

This course meets  
the requirements of  
AQCC Reg. #8



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Dennis Mejia

The above individual was seen by me on 2/1/18 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR.1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations CR 2 & 3 read obtained - results pending  
No restrictions

*Matthew Edwards*  
 Examining Provider

3/2/08  
 Date

Matthew Edwards, PA.-C  
 Midtown Occupational  
 Health Services, P.C.  
 2490 W. 26th Ave., Bldg. A, Suite 300  
 Denver, CO 80211  
 303-831-9393

*Handwritten diagonal stamp or scribble, partially illegible.*

Respirator Fit Test

I, Dennis Mejia, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 05-10-2018 Fit Test Conductor: Ruben

Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

DM

Breathe normally through the respirator

DM

Breathe deeply through the respirator. Be certain that your breaths are deep and regular

DM

Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.

DM

Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.

DM

Do several jumping jacks to ensure that the respirator does not come loose from your face.

DM

Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.

DM

Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: Dennis Mejia

Date: 05-10-2018

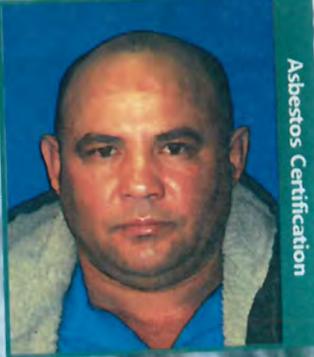
Fit Test Conductor Signature: Ruben

Date: 5/10/2018

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

**Eutiquio  
Dominguez-Batista**

Expires: 11/20/2019 Cert. #: 25135

Date Issued: 11/20/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

## EUTIQUIO DOMINGUEZ BATISTA

Has successfully completed  
The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**  
And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 11/12/2018 - 11/15/2018

Exam Date 11/15/2018

No. Hours 32

Certificate No CO111518-03AWI

Expires 11/15/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



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A handwritten signature in black ink, appearing to read "H. Cuevas".

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Eduardo Dominguez

The above individual was seen by me on 11-19-18 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**FAXED**  
NOV 19 2018

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

   There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

   There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations CXR - B-Read - Results pending

Lawrence Cedillo  
Examining Provider

11-19-18  
Date

Lawrence Cedillo D.O.  
Midtown Occupational  
Health Services, P.C.  
2490 W. 26th Ave., Bldg. A, Suite 300  
Denver, CO 80211  
303-831-9393

MIDTOWN OCCUPATIONAL HEALTH SERVICES  
OSHA ASBESTOS CERTIFICATION

**FAXED**  
NOV 19 2018

### Respirator Fit Test

I, Estiquio Dominguez, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 11/26/2018 Fit Test Conductor: John Dominguez

**Respirator Information**

1. Manufacturer: North
2. Model: 7700M
3. Size (Circle one):      SMALL      ~~MEDIUM~~      LARGE
4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: Estiquio Dominguez

Date: 11/26/2018

Fit Test Conductor Signature: \_\_\_\_\_

Date: 11/26/2018

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

Irina Blanco  
Belo

Expires: 11/20/2019 Cert. #:25136

Date Issued: 11/20/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

## IRINA BLANCO BELLO

Has successfully completed

The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 11/12/2018 - 11/15/2018

Exam Date 11/15/2018

No. Hours 32

Certificate No CO111518-04AWI

Expires 11/15/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Irina Blanco

The above individual was seen by me on 11-19-18 in accordance to 29 CFR 1926.1101(Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

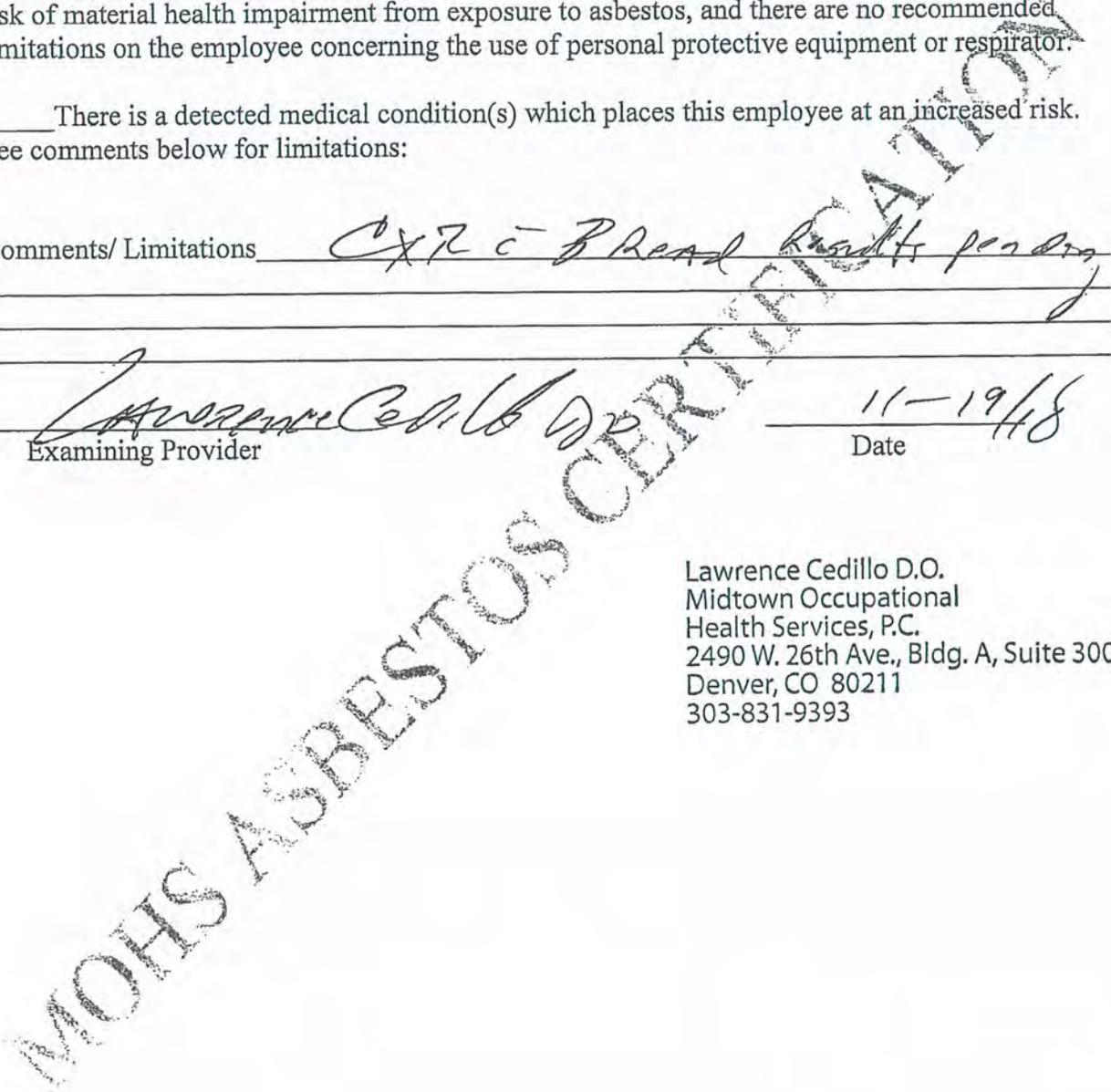
There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations CXR - B Read Results per org

Lawrence Cedillo D.O. Examining Provider 11-19-18 Date

Lawrence Cedillo D.O.  
Midtown Occupational  
Health Services, P.C.  
2490 W. 26th Ave., Bldg. A, Suite 300  
Denver, CO 80211  
303-831-9393



Respirator Fit Test

I, Irina Blanco, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 11/26/2018 Fit Test Conductor: Jake Downing

Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one):      SMALL      MEDIUM      LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)?      YES      NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: Irina Blanco  
Fit Test Conductor Signature: Jake Downing

Date: 11-26-2018  
Date: 11/26/2018

Colorado Department  
of Public Health and  
Environment



Worker



Asbestos Certification

Ramira  
Duran

Expires: 10/23/2019 Cert. #: 25056

Date Issued: 10/23/2018

# INTERNATIONAL

Environmental and Safety Training L.L.C.

720 Billings Street Unit F

Aurora, Colorado 80011

Phone # (720) 859-3134

Fax # (720) 859-0660



*CERTIFIES THAT*

**RAMIRA DEL VALLE DURAN MARQUINA**

Has successfully completed

The **EPA- APPROVED AHERA ASBESTOS COURSE** for **WORKER**

And passed the requirements examination in that discipline

This course is **EPA-Approved** under Section 206 of the  
**Toxic Substance Control Act (TSCA)**

Course Date 10/15/2018 - 10/18/2018

Exam Date 10/18/2018

No. Hours 32

Certificate No CO101818-07AWI

Expires 10/18/2019

This course meets the  
requirements of  
AQCC Reg. #8 Part B



Invalid without raised seal

Training Director

Midtown Occupational Health Services  
2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211  
Phone: (303) 831-9393 Fax: (303) 831-6335  
OSHA Asbestos Certification

Applicants Name Ramira Duran

The above individual was seen by me on 10-19-18 in accordance to 29 CFR 1926.1101 (Asbestos Certification) and 29CFR1910.134 (Respirator Certification). The following was performed:

1.  Completion and review of the standardized medical questionnaire and work history with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems per Appendix D in 1926.1101
2.  Reviewed the employer's description of this individual's duties as they relate to asbestos exposure, the anticipated exposure level, and the personal protective and respiratory equipment to be utilized by this individual.
3.  Review of information from previous medical examinations, if available.
4.  A physical examination with emphasis upon the pulmonary, cardiovascular, and gastrointestinal systems, including a pulmonary function test of forced vital capacity (FVC) and forced expiratory volume at one second (FEV-1).
5.  Determined that a chest roentgenogram was  was not  required as part of this examination. (note: according to CFR 1926.1101 (M)(2)(ii)(C) it is at the discretion of the physician, whether or not a chest X-ray is required)
6.  Reviewed OSHA's Medical Evaluation Questionnaire in Appendix C Part A Section 2 in accordance with 29CFR 1910.134 and have determined that this individual may  may not  use a respiratory device while performing his/her required duties.
7.  The employee has been instructed to report any difficulties in using the respirators or any change of physical status to their supervisor or physician.
8.  In accordance with OSHA requirements, I have fully explained the results of the medical examination and laboratory tests to the above named patient.
9.  In accordance with OSHA I have informed this individual of the health risks involved with smoking, of the synergistic relationship between cigarette smoking and asbestos exposure in producing lung cancer, and that cessation of smoking will reduce the risk of lung cancer.

**Midtown Occupational Health Services**  
**2420 W. 26<sup>th</sup> Ave. Ste. 200-D Denver, CO 80211**  
**Phone: (303) 831-9393 Fax: (303) 831-6335**  
**OSHA Asbestos Certification**

There is no detected medical condition which would place this employee at an increased risk of material health impairment from exposure to asbestos, and there are no recommended limitations on the employee concerning the use of personal protective equipment or respirator.

There is a detected medical condition(s) which places this employee at an increased risk. See comments below for limitations:

Comments/ Limitations \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

  
 Examining Provider

10/17/18  
 Date

**Kirk Holmboe, D.O.**  
**Midtown Occupational**  
**Health Services, P.C.**  
**2490 W. 26th Ave., Bldg. A, Suite 300**  
**Denver, CO 80211**  
**303-831-9393**

*MIDTOWN OCCUPATIONAL HEALTH SERVICES*

Respirator Fit Test

I, Raissa Duran, acknowledge that I have been fit tested and trained for the proper use and care of my respirator. I have read and understand JKS's written respiratory program manual.

Date of Fit Test: 10/24/2018 Fit Test Conductor: [Signature]

Respirator Information

- 1. Manufacturer: North
- 2. Model: 7700M
- 3. Size (Circle one): SMALL MEDIUM LARGE
- 4. Approval Number: TC-84A-0592

Irritant smoke used (Circle one)? YES NO

Please initial the following as each test is completed:

- Breathe normally through the respirator
- Breathe deeply through the respirator. Be certain that your breaths are deep and regular
- Turn your head from one side to the other to the fullest extent about every second without bumping the respirator on your shoulders. Ensure that your movement is complete. Inhale on each side.
- Nod your head up and down to the fullest extent about every second without bumping the respirator on your chest. Ensure that your movement is complete and can be completed quickly. Inhale when you are facing up.
- Do several jumping jacks to ensure that the respirator does not come loose from your face.
- Move your mouth to its fullest extent; for example, yawn, move your jaw around, etc. Ensure that you can move your mouth as necessary without compromising the fit of the respirator.
- Read the Rainbow Passage

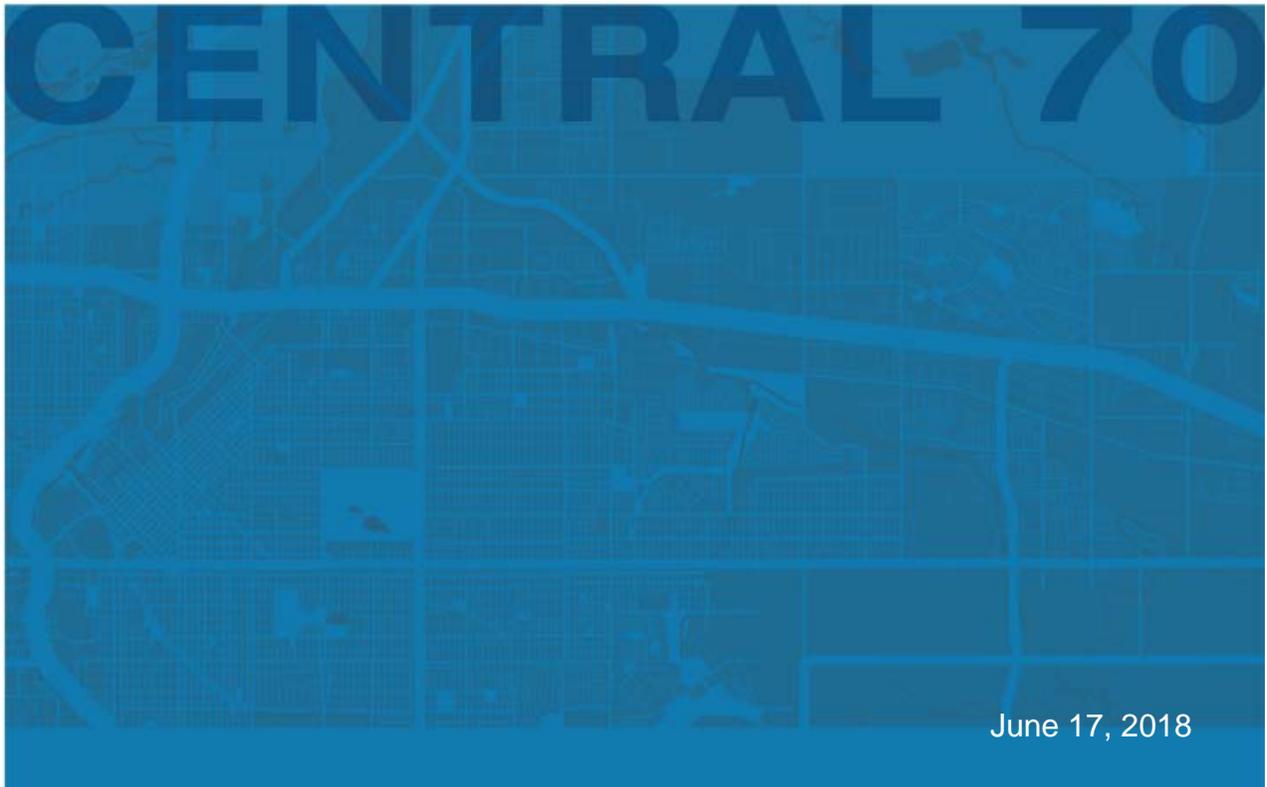
When the sunlight strikes raindrops in the air, they act like a prism and form a rainbow. A rainbow is a division of white light into many beautiful colors. These take the shape of a long round arch with its path high above and its two ends apparently beyond the horizon. There is, according to legend, a boiling pot of gold at one end. People look, but no one ever finds it. When a man looks for something beyond his reach his friends say he is looking for the pot of gold at the end of the rainbow.

Employee Signature: Raissa Duran  
Fit Test Conductor Signature: [Signature]

Date: 10/24/18  
Date: 10/24/2018

## 6. Project Design

## 6a. SSAR



**Structure Survey Assessment Report AP-74**

4610 Clayton Street

Denver, CO 80216

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Appendix B	Positive Asbestos & Lead Sample Material Photographs
Appendix C	Laboratory Results & Chain of Custody – Asbestos
Appendix D	Laboratory Results & Chain of Custody – Lead & TCLP

**APEC Project # 18-3066-013**

***Prepared for***

**Kiewit Meridiam Partners**

***Prepared by***

*Logan Greenfield*  
Logan Greenfield, CABI & AMS #20715  
VP of Field Services

***Reviewed by***

*Brandice Eslinger*  
Brandice Eslinger, EP, CABI & PD # 5494  
President

# 1 Introduction

All-Phase Environmental Consultants, Inc. (APEC) was contracted to complete an environmental building survey for suspect asbestos-containing materials (ACMs), lead-based paint (LBP), and regulated building materials (RBM) at 4610 Clayton Street, Denver, CO. This survey will identify what materials will need to be abated or removed prior to the future demolition activities.

**Table 1-1 Project Details**

Client Name:	Kiewit Meridiam Partners
Site Location:	4610 Clayton Street, Denver, CO 80216
Building Type	Single Family Residence with Detached Garage
Building Size	Building is approximately 977 square feet.
Construction Date:	1941 – Based on City and County of Denver Assessor's Records.
Building Uses:	Residential – 977 Square Feet
Types of Materials to be Disturbed/Description of Proposed Disturbances:	Client intends to demolish the structure. All building materials will be impacted.

This Structure Survey Assessment was conducted as part of the Central 70 Project located in Denver, Colorado. This assessment was conducted in accordance with the Structure Survey Assessment Plan (SSAP), dated March 27, 2018. The SSAP, as defined in Section 23132 of Schedule 17 (Environmental Requirements) of the final Central 70 Project Agreement between Colorado Department of Transportation (CDOT) and Kiewit Meridiam Partners, identifies the procedures for completing building and structure surveys for ACMs, LBP and universal wastes or other Recognized Hazardous Materials (RHMs), as defined by the Resource Conservation and Recovery Act (RCRA); universal waste, as defined by the U.S. Environmental Protection Agency (EPA) and 6 CCR Part 273 of the Colorado Hazardous Waste Regulations; chlorofluorocarbons (CFCs), as defined by the Clean Air Act; and polychlorinated biphenyls (PCBs), as defined by the Toxic Substances Control Act.

## 2 Site Survey Methodology

---

### 2.1 ASBESTOS SURVEY

On May 10, 2018, APEC certified personnel Logan Greenfield conducted an asbestos survey for demolition at the aforementioned address. The asbestos survey (inspection/sampling) was completed in accordance with the SSAP and follows guidelines established under the USEPA Asbestos Hazard and Response Act (AHERA) program and as required by USEPA regulation 40 Code of Federal Regulations (CFR) Part 61, National Emissions Standards for Hazardous Air Pollutants (NESHAP). Bulk sampling of suspected ACMs were conducted in strict accordance with AHERA sampling procedures detailed in 40 CFR 763.86. These include but aren't limited to labeling each sample, recording on a chain-of-custody, taking a photo of the sample and recording the location on a site diagram. Demolition work could disturb materials that contain asbestos and put unprotected workers at risk, violating asbestos regulations, which are enforced by the Occupational Safety and Health Administration (OSHA), the EPA, the Colorado Department of Public Health and Environment (CDPHE) and the Denver County Health Department. All samples were collected and submitted to EMSL Analytical, Inc. in Denver, CO per APEC chain-of-custody protocol. The laboratory is a member of the National Voluntary Laboratory Accreditation Program (NVLAP) and is qualified to perform the required analysis (Appendix A). The analysis conducted was the EPA Interim Method for the Determination of Asbestos in Bulk Samples, using standard Polarized Light Microscopy (PLM) and dispersion staining as established in 40 CFR Part 763.

***This inspection report and methodology complies with the CDPHE Asbestos Sampling and Report Requirements Memorandum dated February 28, 2018.***

---

### 2.2 LEAD-BASED PAINT SURVEY

On May 10, 2018, APEC certified personnel Rick Ralston conducted the lead based paint (LBP) survey. The LBP survey was conducted to evaluate the absence and/or presence of LBP or lead-containing paint (LCP) that will be impacted during future demolition activities. The survey consisted of reviewing and inspecting the interior, exterior and roof system of the structure for suspect LBP or LCP. The testing method was the use of a heat gun and/or scraping a portion of the paint to the substrate (material under the paint). Proper chain-of-custody procedures were followed and samples were sent to EMSL Analytical, Inc. in Cinnaminson, NJ, via Fed Ex. The samples were analyzed by total lead (percent by weight) via Flame Atomic Absorption (FAA) by EPA Method 7420. EMSL is accredited under the American Industrial Hygiene Association's Environmental Lead Proficiency Analytical Testing program. LBP, according to the EPA, is defined as paint that contains lead in concentrations greater than 1.0 milligrams per square centimeter (mg/cm<sup>2</sup>) as measured with an XRF or 5000 parts per million (ppm) when measured by weight, or 0.5 percent (%) by weight.

A total of 14 homogeneous paint color variations of suspect LBP areas were identified. One paint chip sample was collected from each suspect homogeneous area and submitted to the laboratory for analysis. Representative photographs of each known LBP were taken; however they are not included as there are no positive LBP or LCP samples. The paint chip sample locations were recorded and are included on the sample location drawing (Figure 3). Descriptions of the suspect homogeneous materials and a list of the collected samples are described in the 'Findings' section.

Based on the analytical results for the 14 samples, a Toxicity Characteristic Leachate Procedure (TCLP) sample was analyzed by collecting a representative sample (approximately 105 grams) of combined suspect building materials. The sample results are located in Appendix D.

---

## **2.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY**

On May 10, 2018, APEC personnel conducted the RBM inventory consisting of inspecting the interior, exterior and roof system. The inspection was conducted to visually identify and quantify any building materials, devices and equipment suspected of containing potentially regulated materials as they pertain to the EPA Universal Waste Rule (UWR) requirements (40 CFR, Part 273). APECs inventory review consisted of the following : potential mercury-containing thermostats/switches; fluorescent light tubes and compact fluorescent bulbs; items potentially containing polychlorinated biphenyls (PCBs) (generally ballasts found within the fluorescent light fixtures); tritium powered exit signs; smoke detectors potentially containing Americium-241; and Freon-containing refrigeration systems. The survey of suspected RBMs is for use by contractors conducting the removal of items from the property. Samples of suspect RBMs are not required for this type of survey, as all determinations are made by visual means.

## 3 Findings

---

### 3.1 ASBESTOS SURVEY

A total of 46 bulk samples, including 2 duplicate samples, were collected from 18 suspect homogenous materials throughout the structure. The results of the PLM analysis are presented in Table 3-1A and Table 3-1B. The following samples are positive for ACMs (i.e. present greater than 1%):

#### Regulated Asbestos Containing Materials (RACM)

- 4610CL-R7-12A & 4610CL-R4-12B – Duct Wrap located on furnace supply duct registers

#### Non-regulated Asbestos Containing Materials

- 4610CL-EX-17A & 4610CL-EX-17B – Roofing Mastic (Tar) on the House

#### Point Counts

Point count analysis occurred for samples with <1% of asbestos. Point count analysis was not performed because the initial PLM analysis content did not exceed 1%. The laboratory analytical report is included as Appendix C.

#### Duplicate Samples

For quality assurance purposes, duplicate samples are taken approximately every 20<sup>th</sup> sample. Duplicate samples are listed as a duplicate (Q) in the sample location column of Table 3-1A or Table 3-1B. Two samples, 4610CL-R1-7Q and 4610CL-B-16Q, were collected because a total of 44 samples were obtained, requiring two duplicates.

---

### 3.2 LEAD-BASED PAINT SURVEY

A total of 14 homogeneous paint color variations were analyzed for the presence of LBPs and LCPs (Table 3-2; Figure 3). Under EPA 40 CFR Part 745, LBP is defined as any paint or surface coating that contains lead equal to or exceeding 0.5% (by weight), while LCP is defined as any paint or surface coating containing lead greater than or equal to 0.06% up to 0.5% (by weight). Caution should be taken during demolition to minimize cutting, abrading, or otherwise causing an air disturbance to this material and work must be completed in accordance with the OSHA Lead in Construction Standard (29 CFR 1926.62).

One lead samples (4610CL-11L) was found to be greater than 0.06% by weight and less than 0.5% by weight and is considered LCP. Three samples (4610CL-12L, 4610CL-13L & 4610CL-14L) had lead concentrations greater than 0.5% by weight and is considered LBP (Table 3-2). The remaining 10 samples were less than the LCP and LBP thresholds, and are considered non-lead containing paint (NLC). The laboratory analytical report is included in Appendix D.

### **3.2.1 TCLP LEAD ANALYTICAL RESULTS**

Since multiple samples analyzed as a LCP and LBP, TCLP analysis of lead was performed. TCLP analysis simulates the potential for the demolished building materials to leach lead if placed in the landfill and results of the analysis determine if the materials will be considered hazardous waste. TCLP analysis was performed for landfill compliance. The Toxicity Characteristic (TC) maximum concentration is 5 milligrams per liter (mg/L). The results of the TCLP analysis is <0.40 mg/L, which is below the regulated limit and therefore not considered hazardous. The analytical report is included in Appendix D.

### **3.3 REGULATED BUILDING MATERIALS INVENTORY SURVEY**

Several suspect RBMs were visually identified throughout the structure. RBMs that are a cause of concern, when discovered, are discussed below. The following non-regulated hazardous building materials were identified at the property: water heater, refrigerator, gas main, electric breaker box, furnace and electric meter. Although these items are not regulated, they will need to be removed prior to demolition. A complete list of the RBMs is presented in Table 3-3, and selected locations of the RBMs are depicted in Figure 4.

---

## 4 Conclusions and Recommendations

---

### 4.1 ASBESTOS

Approximately 25 square feet of RACM was identified as vent wrap located on the supply registers for the heating/air conditioning system. These materials will require abatement due to being rendered friable easily prior to demolition of the structures.

Approximately 625 square feet of roofing mastic/tar material was confirmed to be an ACM. This material is a Category II Non-friable ACM, is exempt and not regulated, and generally structures can be demolished without abatement of this ACM.

No other ACM was identified throughout the structures; however, if additional suspect materials, not sampled during this investigation, are identified during demolition, they should either be assumed to be ACM or should be sampled prior to disturbance.

Prior to demolition activities, all friable and non-friable (that can or will be rendered friable) ACM that may be impacted during the demolition must be abated by a Colorado Certified Asbestos Abatement Contractor as required by NESHAP and the CDPHE – Air Pollution Control Division: Asbestos. The exception are Category I & II Non-Friable ACMs that can, with best management practices, remain during the activities and remain non-friable, i.e. not able to be reduced to a dust. Activities such as grinding, excessive munching of materials, sawing, jack-hammering, etc. are strictly prohibited.

According to AHERA, EPA, and the CDPHE, materials testing at less than or equal to 1% asbestos fibers are not considered to be an ACM. However, any materials containing asbestos still need to be regulated. OSHA protocol must be followed when handling materials containing ANY amount of asbestos. Proper personal protective equipment (PPE) and engineering controls must be utilized if these materials will be impacted during demolition activities.

---

### 4.2 LEAD-BASED PAINT

Lead was detected at concentrations above the LCP threshold in 1 of the 14 samples and above the LBP threshold in 3 of the 14 samples. The remaining 10 samples are considered NLC. Although LCP/LBP was identified in the samples analyzed, the TC limit of 5 mg/L was not exceeded in the TCLP lead analysis. No lead abatement is required prior to demolition.

TCLP results confirmed that the waste stream is not hazardous with respect to lead content.

While the TCLP results indicate that the waste stream is not characteristically hazardous with respect to lead content, LCP and LBP are still present in the building materials. Therefore, the contractor responsible for demolition of this structure is notified with receipt of this report of the presence or potential presence of LCP and/or LBP in the building materials that comprise the building. The contractor should also notify their employees of the presence of LCP or LBP prior to any disturbance and make the US Department of Labor OSHA publication number 3142-12R 2004 available to their workers. (“Lead in Construction”, <http://www.osha.gov/Publications/osha3142.pdf>). The standards address topics such as PELs for workers, exposure assessment, protection of employees during assessment of exposure, employee notification, PPE, medical surveillance, along with other topics related to working with LCP and LBP.

---

### 4.3 REGULATED BUILDING MATERIALS

Materials found during the regulated materials inventory within the building may require special handling or disposal prior to demolition activities. If abatement is needed, APEC recommends that the asbestos contractor or general contractor selected by the client properly dispose of these regulated materials, per applicable regulations.

With regards to RBMs, if listed, it is likely that the ballasts in the fluorescent light fixtures do contain PCBs. Where a manufacturer’s label is present indicating “no PCBs”, the ballast can be disposed of with recyclable metal or with other municipal waste. During removal for disposal as part of the demolition activities, each ballast should be visually inspected for the manufacturer’s label indicating “no PCBs”. If the label does not have this notation, the ballast should be considered PCB-containing and should be disposed of as a hazardous waste in accordance with local, state, and federal regulatory guidelines. Refrigerators and air conditioning units contain freon; this will need to be reclaimed or taken to a facility capable of this activity. Mercury containing thermostats will need to be disposed of at a facility certified to take this type of material. The contractor should also carefully remove all associated fluorescent light tubes and compact fluorescent lights and recycle or dispose of these materials according to applicable regulations.

This inspection was primarily relevant to the Federal UWR requirements under 40 CFR 273. It should be noted that contractors submitting bids for removal of the RBMs should verify quantities, conditions, and locations of all RBMs prior to bid submittals and initiating demolition activities. The contractor is also responsible for proper recycling and/or disposal of the RBMs, and should follow all federal, state and local regulations when handling these materials.

## 5 Limitations

This Structure Survey Assessment Report was prepared by All-Phase Environmental Consultants, Inc., at the request of and for the sole benefit of Kiewit Meridiam Partners, or any entity controlling, controlled by, or under common control with Colorado Department of Transportation. APECs certified inspectors used reasonable diligence and professional judgement to identify all suspect asbestos-containing materials, lead based paint, and regulated building materials in the property. APEC will not be held liable for property damage or any loss of property value due to the inspection. This report is not an abatement plan and is intended to be informational only; APEC will not be held responsible for the mishandling of the information contained herein.

APEC utilized destructive inspection methods in performing this survey, however accessibility may have been a limiting condition. If additional impacted suspect materials are discovered during related work for which there are no sample documentation/results, APEC recommends pursuing one of the following alternatives: Sample and analyze the discovered suspect material(s) to determine whether it contains asbestos, lead or other regulated materials; or assume the material(s) to be containing, quantify and remove on a unit cost basis.

Notwithstanding any provision to the contrary, the total liability of "All Phase Environmental Consultants, Inc.", and its employees, officers or directors be liable in contract, tort, strict liability warranty or otherwise, for any special, incidental or consequential damages, such as but not limited to, delay, disruption, loss of product, loss of anticipated profits or revenue, damages, cost, and expenses, including attorney's fees, shall not exceed the aggregate amount paid to All Phase Environmental Consultants, Inc. under this Agreement regardless of the legal theory under which such liability is imposed.

## Tables

Table 3-1A	Asbestos Containing Samples
Table 3-1B	Non-Asbestos Containing Samples
Table 3-2	Summary of Paint Chip Laboratory Analysis for Lead
Table 3-3	Summary of Regulated Building Materials

**Table 3-1A Positive Asbestos Containing Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification	Estimated Quantity (Sq. ft.)
4610CL-R7-12A	ROOM 7	DUCT WRAP 70% CHRYSOTILE	PLM	Good	DUCT WRAP	REGISTERS IN ROOMS 7&4	RACM	25
4610CL-R4-12B	ROOM 4	DUCT WRAP 65% CHRYSOTILE	PLM	Good			RACM	
4610CL-EX-17A	ROOF OF HOUSE	MASTIC 6% CHRYSOTILE	PLM	Good	ROOFING MASTIC	HOUSE ROOF	Cat II	540
4610CL-EX-17B		MASTIC 6% CHRYSOTILE	PLM	Good				
ND=Non-Detect PLM=Polarized Light Microscopy NA=Not Applicable RACM=Regulated Asbestos Containing Materials								

**Table 3-1B Non-Asbestos Containing Samples**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4610CL-R7-1A	ROOM 7	ND	PLM	Good	ROUGH TEXTURED PLASTER	WALLS OF ROOM 7	NA
4610CL-R7-1B		ND	PLM	Good			NA
4610CL-R7-1C		ND	PLM	Good			NA
4610CL-R7-2A	ROOM 7	ND	PLM	Good	KNOCKDOWN TEXTURED PLASTER	CEILING OF ROOM 7	NA
4610CL-R7-2B		ND	PLM	Good			NA
4610CL-R7-2C		ND	PLM	Good			NA
4610CL-R6-3A	ROOM 6	ND	PLM	Good	SPRAY TEXTURED PLASTER	WALLS AND CEILING OF ROOM 6	NA
4610CL-R6-3B		ND	PLM	Good			NA
4610CL-R6-3C		ND	PLM	Good			NA
4610CL-SW-4A	STAIRWELL	ND	PLM	Good	SMOOTH TEXTURED PLASTER	WALLS AND CEILING OF STAIRWELL	NA
4610CL-SW-4B		ND	PLM	Good			NA
4610CL-SW-4C		ND	PLM	Good			NA
4610CL-R4-5A	ROOM 4	ND	PLM	Good	TEXTURED PLASTER	WALLS AND CEILINGS ORF ROOM 4 AND HALLWAY	NA
4610CL-R4-5B		ND	PLM	Good			NA
4610CL-H-5C	HALLWAY	ND	PLM	Good			NA
4610CL-R4-6A	ROOM 4	ND	PLM	Good	FLOOR TILE	FLOOR OF ROOM 4	NA
4610CL-R4-6B		ND	PLM	Good			NA
4610CL-R3-7A	ROOM 3	ND	PLM	Good	TEXTURED PLASTER	WALLS AND CEILING OF ROOMS 1&3	NA
4610CL-R1-7B	ROOM 1	ND	PLM	Good			NA
4610CL-R1-7C		ND	PLM	Good			NA

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4610CL-R1-7Q	ROOM 1	ND	PLM	Good	TEXTURED PLASTER	WALLS AND CEILINGS ROOM 1&3	NA
4610CL-R5-8A	ROOM 5	ND	PLM	Good	HAND TEXTURED PLASTER	WALLS AND CEILINGS OF ROOM 5	NA
4610CL-R5-8B		ND	PLM	Good			NA
4610CL-R5-8C		ND	PLM	Good			NA
4610CL-H-9A	HALLWAY	ND	PLM	Good	FLOORING	FLOOR OF HALLWAY & ROOM 5	NA
4610CL-R5-9B	ROOM 5	ND	PLM	Good			NA
4610CL-R1-10A	ROOM 1	ND	PLM	Good	FLOORING	FLOOR OF ROOM 1	NA
4610CL-R1-10B		ND	PLM	Good			NA
4610CL-R6-11A	ROOM 6	ND	PLM	Good	FLOORING	FLOOR OF ROOM 6	NA
4610CL-R6-11B		ND	PLM	Good			NA
4610CL-B-13A	BASEMENT	ND	PLM	Good	TEXTURED DRYWALL	CEILINGS OF THE BASEMENT	NA
4610CL-B-13B		ND	PLM	Good			NA
4610CL-B-13C		ND	PLM	Good			NA
4610CL-B-14A	BASEMENT	ND	PLM	Good	PANELING/MASTIC	WALLS OF BASEMENT	NA
4610CL-B-14B		ND	PLM	Good			NA
4610CL-SW-15A	STAIRWELL	ND	PLM	Good	LINOLEUM	FLOOR OF STAIRWELL	NA
4610CL-SW-15B		ND	PLM	Good			NA
4610CL-B-16A	BASEMENT	ND	PLM	Good	PEEL AND STICK TILE	FLOOR OF BASEMENT	NA
4610CL-B-16Q		ND	PLM	Good			NA
4610CL-B-16B		ND	PLM	Good			NA

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification
4610CL-EXG-18A	GARAGE ROOF	ND	PLM	Good	ROOFING	GARAGE ROOF	NA
4610CL-EXG-18B		ND	PLM	Good			NA
ND=Non-Detect PLM=Polarized PLM=Polarized Light Microscopy NA=Not Applicable							

**Table 3-2 Summary of Paint Chip Analysis for Lead**

<b>Sample Number</b>	<b>Sample Location</b>	<b>Lead Concentration (% wt.)</b>	<b>Component</b>	<b>Paint Description</b>	<b>Classification</b>
4610CL-1L	Room 7	<0.0080	Plaster	Dark Blue	NLC
4610CL-2L	Room 7	<0.0080	Plaster	White	NLC
4610CL-3L	Room 7	0.041	Wood	Brown	NLC
4610CL-4L	Room 7	<0.0080	Plaster	Pink/Gold	NLC
4610CL-5L	Room 4	<0.0080	Plaster	Mint Green	NLC
4610CL-6L	Room 1	<0.0080	Plaster	Lime Green	NLC
4610CL-7L	Room 7	<0.0080	Plaster	Salmon	NLC
4610CL-8L	Room 1	<0.0080	Plaster	Green/Brown	NLC
4610CL-9L	Room 1-Hallway Door	0.024	Wood	White	NLC
4610CL-10L	Stairwell	<0.0080	Plaster	Brown	NLC
<b>4610CL-11L</b>	<b>Basement</b>	<b>0.21</b>	<b>Plaster</b>	<b>Blk/Red/White</b>	<b>LCP</b>
<b>4610CL-12L</b>	<b>Exterior</b>	<b>1.8</b>	<b>Wood</b>	<b>Gray</b>	<b>LBP</b>
<b>4610CL-13L</b>	<b>Exterior</b>	<b>2.9</b>	<b>Wood</b>	<b>Tan</b>	<b>LBP</b>
<b>4610CL-14L</b>	<b>Garage</b>	<b>2.4</b>	<b>Wood</b>	<b>Tan</b>	<b>LBP</b>

**Table 3-3 Summary of Regulated Building Materials**

<b>Room</b>	<b>Material</b>	<b>Location</b>	<b>Quantity Fixture/Bulbs each</b>
Basement	Water Heater	Base of stairs	1
Room 6	Refrigerator	North West Corner	1
Exterior	Gas Main	NW corner of house Outside	1
Exterior	Electrial Breaker Box	NW corner of house Outside	1
Crawlway	Furance	South Side of the house	1
Exterior	Electrial Meter	NE corner of house Outside	1

## Figures

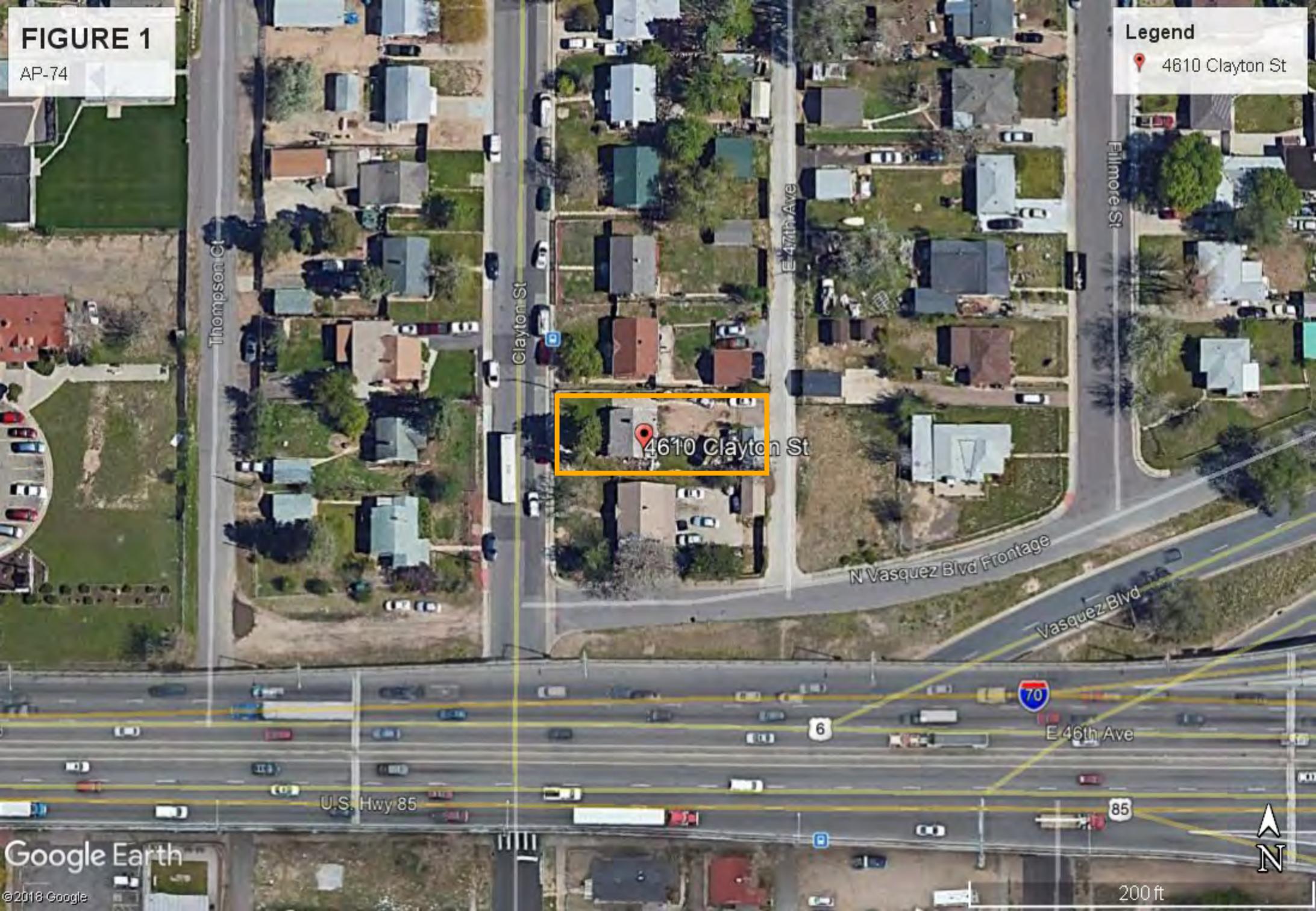
- Figure 1 Site Location
- Figure 2 Asbestos Bulk Sample Locations
- Figure 3 Lead-Based Paint Sample Locations
- Figure 4 Regulated Building Materials

# FIGURE 1

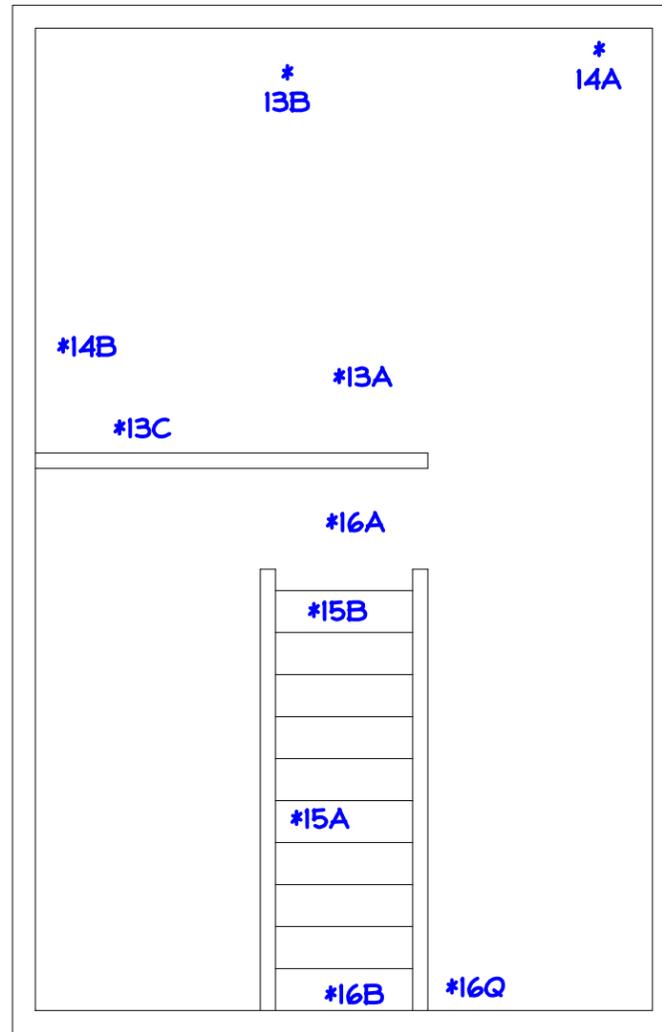
AP-74

**Legend**

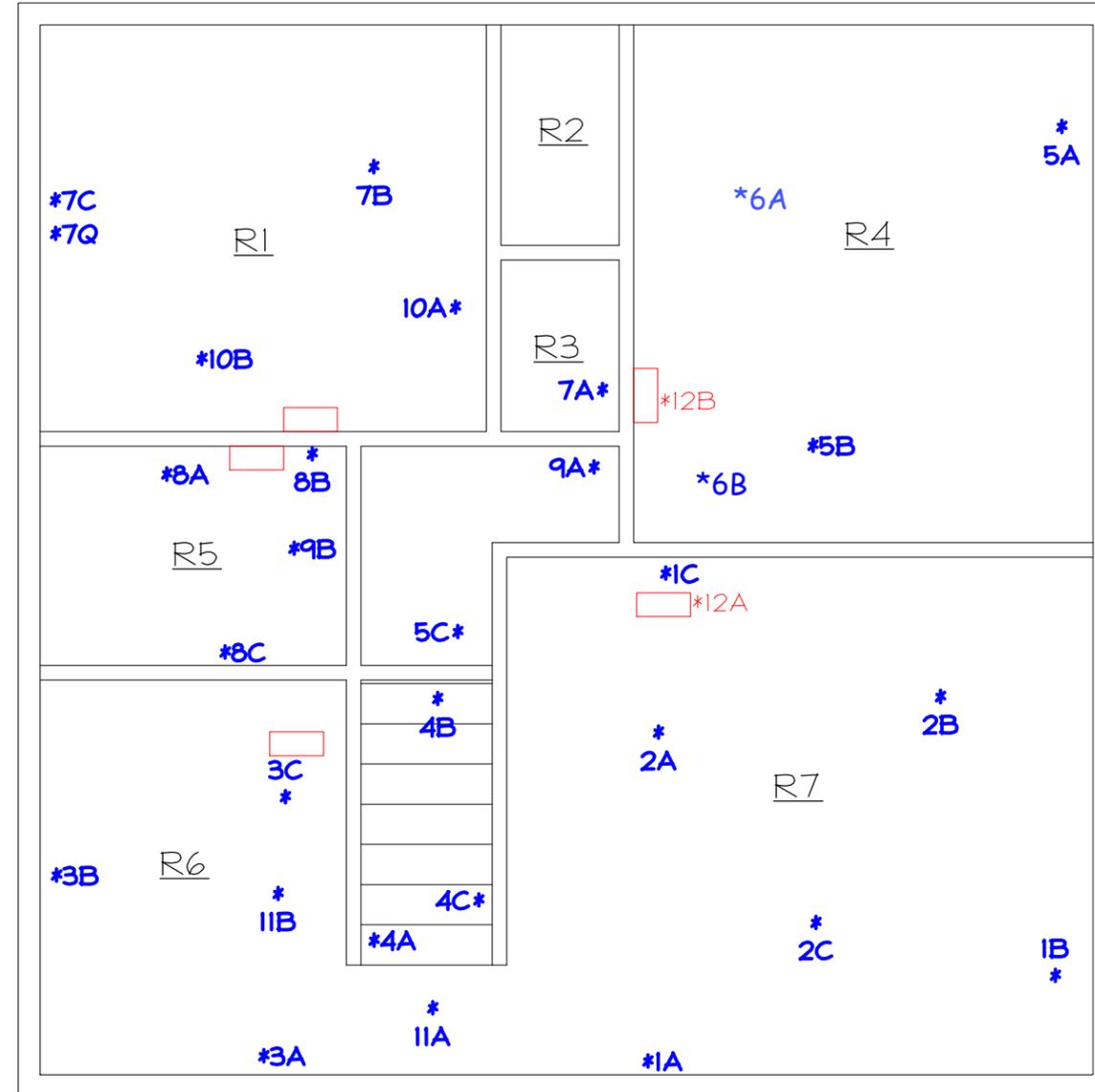
-  4610 Clayton St



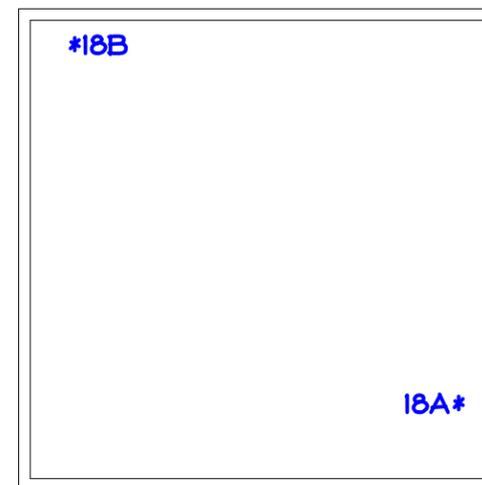
4610 Clayton St



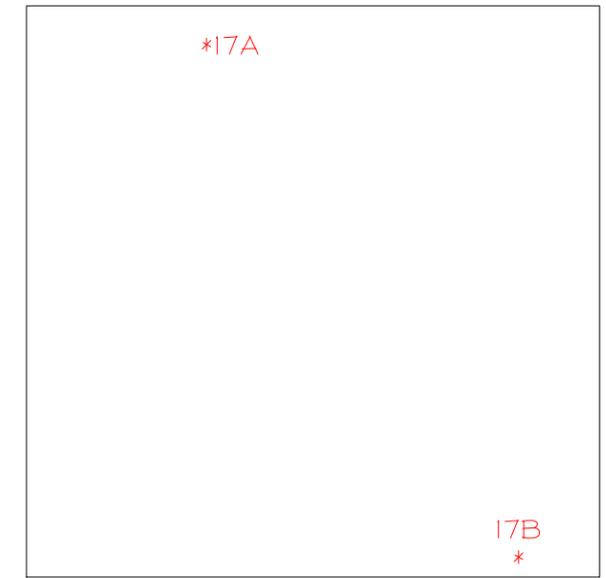
BASEMENT



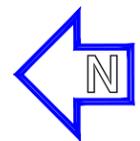
MAIN FLOOR



GARAGE 1/8"=1'-0"



ROOF 1/8"=1'-0"

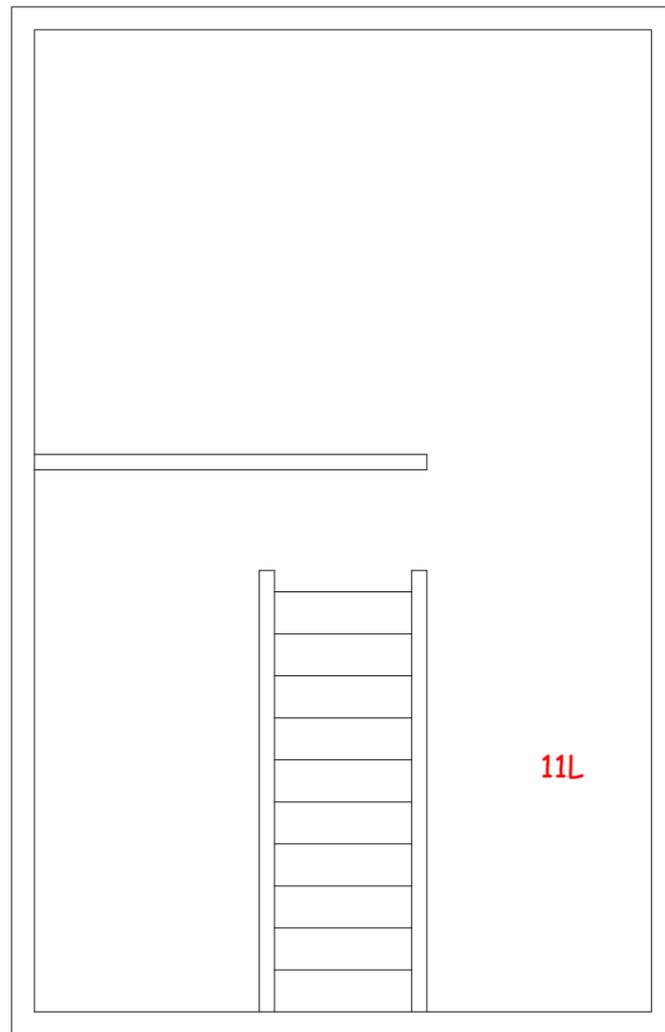


DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/8" = 1'-0"

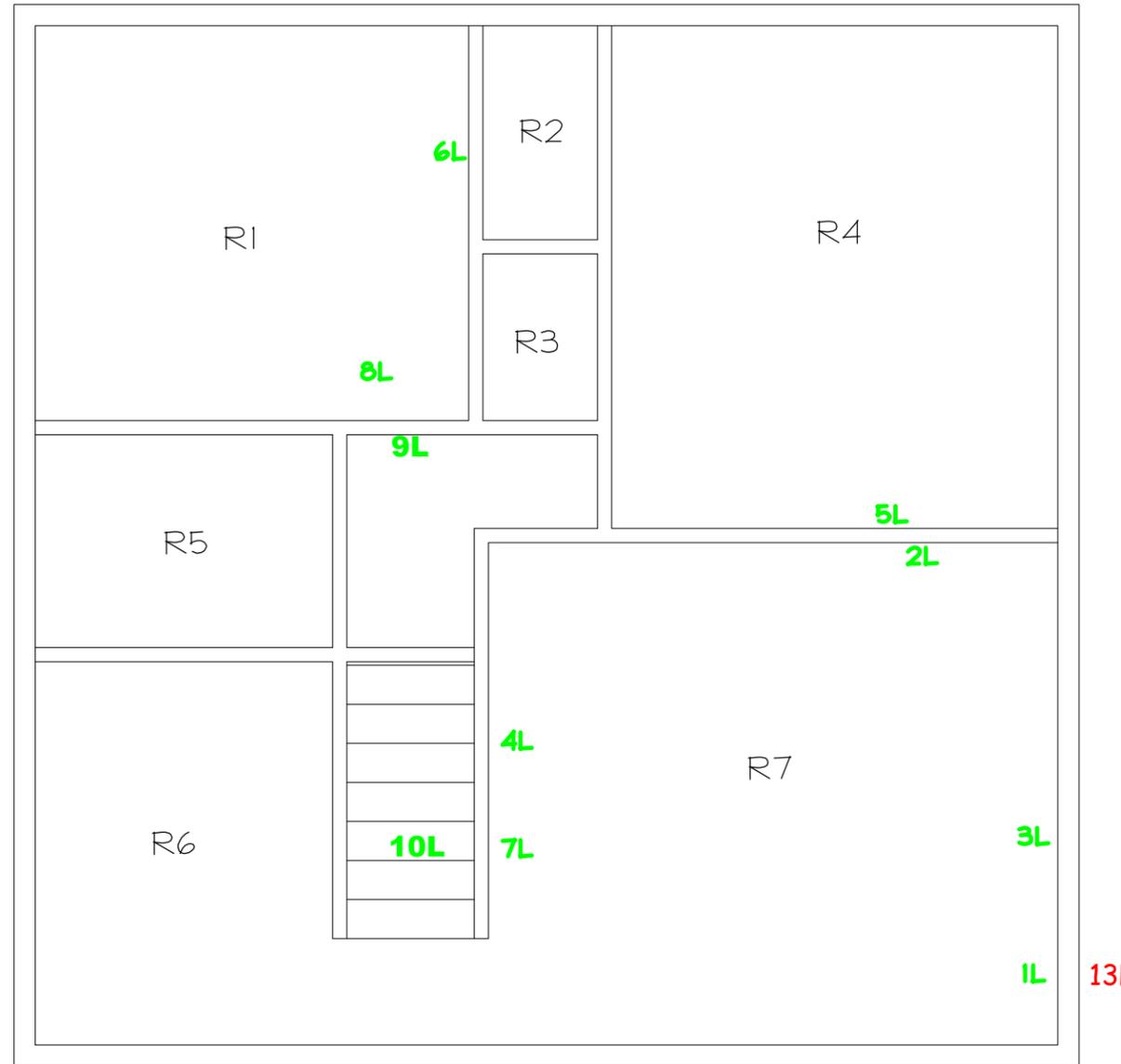
- R1 = Room Numbers
- 4B = Asbestos Samples (Detect)
- 4B = Asbestos Samples (Non-Detect)
- = Vent Boot Wrap Positive for Asbestos

**FIGURE 2 - Asbestos Bulk Sample Locations**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-74  
 4610 Clayton St., Denver, CO  
 May 10, 2018  
 APEC #: 18-3066

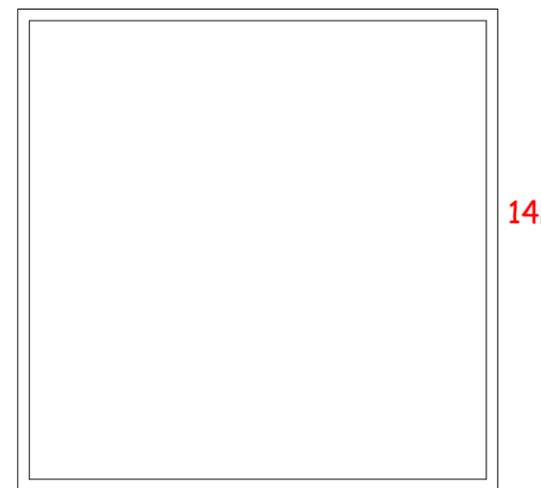
**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375



BASEMENT



MAIN FLOOR 12L



GARAGE 1/8"=1'-0"

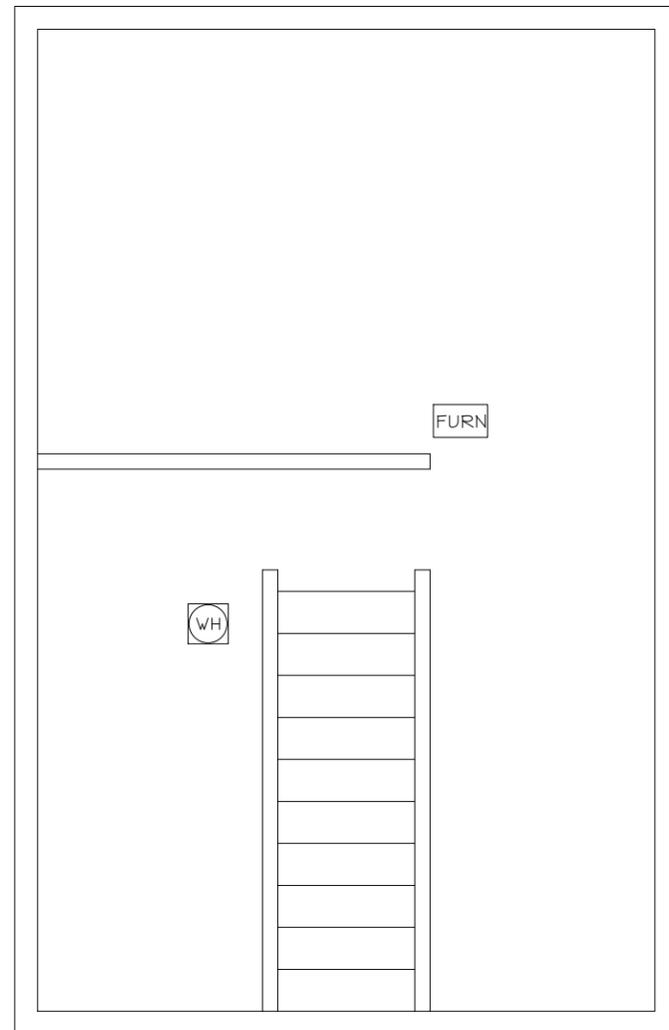


DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/8" = 1'-0"

- R1 = Room Numbers
- 4 = Lead Base Paint (Detect)
- 4 = Lead Containing Paint (Detect)
- 4 = Lead Base Paint (Non-Detect)

**FIGURE 3 - Lead-Based Paint Sample Locations**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-74  
 4610 Clayton St., Denver, CO  
 May 10, 2018  
 APEC #: 18-3066





BASEMENT



MAIN FLOOR



DR BY: R.A.  
 APPROVED: B.N.E.  
 SCALE: 1/8" = 1'-0"

- R1 = Room Numbers
-  = Water Heater
-  = Furnace
- REF = Refrigerator
- EM = Electric Main/Meter
- GM = Gas Main/Meter

**FIGURE 4 - Regulated Building Materials**  
 CENTRAL 70 - Structure Survey Assessment Map  
 AP-74  
 4610 Clayton St., Denver, CO  
 May 10, 2018  
 APEC #: 18-3066



**ALL-PHASE**  
 ENVIRONMENTAL CONSULTANTS, INC.  
 721 W 9TH STREET  
 Pueblo, CO 81003 Ph: (719) 545-0375

**A**

**ASBESTOS AND LEAD  
CERTIFICATIONS**





Colorado Department  
of Public Health  
and Environment

## ASBESTOS CERTIFICATION\*

This certifies that

**Logan Greenfield**

**Certification No.: 20715**

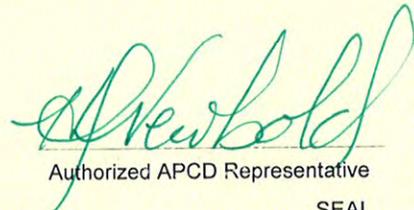
has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Building Inspector\***

**Issued: October 18, 2017**

**Expires: October 18, 2018**

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

  
Authorized APCD Representative  
SEAL



Colorado Department  
of Public Health  
and Environment

## ASBESTOS CERTIFICATION\*

This certifies that

**Logan Greenfield**

**Certification No.: 20715**

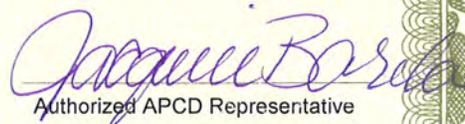
has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Building Inspector\***

**Issued:** September 13, 2018

**Expires:** October 18, 2019

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

  
Authorized APCD Representative

SEAL



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Logan Greenfield

20715

*Has Successfully Completed the EPA- Approved Annual Asbestos Refresher Training Course  
Under Section 206 of the Toxic Substance Control Act (TSCA), Title II.*

BUILDING INSPECTOR

Course Date: September 20, 2017  
Certificate No.: R17-1661-AI-CO  
No. of Hours: 4  
Expiration Date: September 20, 2018  
Certification not valid without watermark

A handwritten signature in black ink that reads "Frank Hulce".

Frank Hulce - Instructor

A handwritten signature in black ink that reads "Danaya Benedetto".

Danaya Benedetto- Training Program Manager



CHC Training  
Nationwide Training & Certification Experts

www.chctraining.com  
303.412.6360  
855.60.CERTIFY

1775 West 55th Avenue  
Denver, CO 80221,  
United States of America

# CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:

## LOGAN GREENFIELD

In recognition of satisfactory completion of the EPA-approved annual asbestos  
refresher training course under section 206 of the Toxic Substance Control Act (TSCA),

Title II entitled:

### BUILDING INSPECTOR

COURSE DATE:

SEPTEMBER 12, 2018

EXPIRATION DATE

SEPTEMBER 12, 2019

COURSE HOURS:

4.0



Verify this Credential

*Danaya N. Benedetto*  
CEO & Training Program Manager

Credential License ID:  
11943552



*Daniel R. Beaver*  
Instructor

CHC Training Certificate No.  
R18-1729-AI-CO



Visit our Website



Colorado Department  
of Public Health  
and Environment

## LEAD-BASED PAINT CERTIFICATION\*

This certifies that

**Richard L. Ralston**

**Certification No.: 9130**

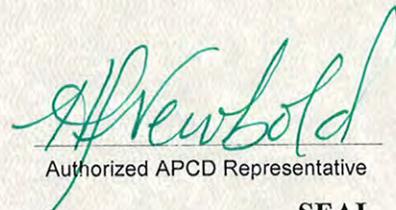
has met the requirements of 25-7-1104, C.R.S. and Air Quality Control  
Commission Regulation No. 19, and is hereby certified by the state of  
Colorado in the following discipline:

**Risk Assessor\***

**Issued: February 10, 2017**

**Expires: February 10, 2019**

*\* This certificate is valid only with the possession of a valid  
lead-based paint training certificate in the discipline specified  
above, issued by either a Colorado approved training provider,  
an EPA approved training provider, or a training provider  
approved by another EPA authorized program.*

  
Authorized APCD Representative

**SEAL**



1775 West 55<sup>th</sup> Avenue  
Denver, CO 80221  
303.410.4941  
trainingchc.com



*Certifies that*

Richard Ralston

*Has successfully completed the required training hours and passed the examination required by the Colorado Department of Public Health and Environment for:*

**Lead-Based Paint Risk Assessor Refresher**

*For the purposes of accreditation under the Colorado Department of Public Health and Environment Regulation No. 19 and other standard developed by EPA pursuant to Title IV of TSCA*

Course Date: April 6, 2016  
Certificate No.: R16-031-LRA-CO  
No. of Hours: 8  
Expiration Date: April 6, 2019

Certification not valid without watermark

*Luis E. Peon*

Luis Peon - Instructor

*Danaya Benedetto*

Danaya Benedetto - Training Program Manager

United States Department of Commerce  
National Institute of Standards and Technology



---

**Certificate of Accreditation to ISO/IEC 17025:2005**

---

NVLAP LAB CODE: 200828-0

**EMSL Analytical, Inc.**  
Denver, CO

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

**Asbestos Fiber Analysis**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

---

2018-04-01 through 2019-03-31

*Effective Dates*



---

*Dana S. Haman*  
For the National Voluntary Laboratory Accreditation Program



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005**

**EMSL Analytical, Inc.**

1010 Yuma Street  
Denver, CO 80204  
Ms. Amanda Lang  
Phone: 303-740-5700  
Email: [alang@emsl.com](mailto:alang@emsl.com)  
<http://www.emsl.com>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200828-0**

**Bulk Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

**Airborne Asbestos Analysis**

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read "Dana S. Laman".

For the National Voluntary Laboratory Accreditation Program



## AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

### **EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: 100194

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

#### **LABORATORY ACCREDITATION PROGRAMS**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> <b>INDUSTRIAL HYGIENE</b>         | Accreditation Expires: September 01, 2018 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL LEAD</b>         | Accreditation Expires: September 01, 2018 |
| <input checked="" type="checkbox"/> <b>ENVIRONMENTAL MICROBIOLOGY</b> | Accreditation Expires: September 01, 2018 |
| <input type="checkbox"/> <b>FOOD</b>                                  | Accreditation Expires:                    |
| <input type="checkbox"/> <b>UNIQUE SCOPES</b>                         | Accreditation Expires:                    |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

*William Walsh, CIH*  
Chairperson, Analytical Accreditation Board

*Cheryl O. Morton*  
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 08/31/2016



## AIHA Laboratory Accreditation Programs, LLC SCOPE OF ACCREDITATION

### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Laboratory ID: **100194**

Issue Date: 08/31/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

### Environmental Lead Laboratory Accreditation Program (ELLAP)

**Initial Accreditation Date: 01/18/1995**

Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description <i>(for internal methods only)</i>
<b>Paint</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Soil</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Settled Dust by Wipe</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	
<b>Airborne Dust</b>		NIOSH 7082	
<b>Composited Wipes</b>		EPA SW-846 3050B	
		EPA SW-846 7000B	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

**B**

POSITIVE ASBESTOS & LEAD  
SAMPLE MATERIAL  
PHOTOGRAPHS





Vent Wrap

Samples Represented –  
4610CL-R7-12A  
4610CL-R4-12B



Roofing Mastic-House

Samples Represented –  
4610CL-EX-17A  
4610CL-EX-17B



LCP – Black/Red/White

Sample Represented –  
4610CL-11L



LBP – Gray

Sample Represented –  
4610CL-12L



LBP – Tan (Front Step & Trim)

Sample Represented –  
4610CL-13L



LPB – Tan (Garage)

Sample Represented –  
4610CL-14L

C

LABORATORY RESULTS &  
CHAIN OF CUSTODY-  
ASBESTOS





# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Project:** 18-3066-C70-AP-74 (CDOT)

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R7-1A-Texture 221803358-0001	Rough Textured Plaster	Red/Beige Non-Fibrous Heterogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-1A-Skim Coat 221803358-0001A	Rough Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R7-1A-Plaster 221803358-0001B	Rough Textured Plaster	Tan/Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R7-1B-Texture 221803358-0002	Rough Textured Plaster	White/Red Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-1B-Skim Coat 221803358-0002A	Rough Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R7-1B-Plaster 221803358-0002B	Rough Textured Plaster	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R7-1C-Texture 221803358-0003	Rough Textured Plaster	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-1C-Skim Coat 221803358-0003A	Rough Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 15% Gypsum 80% Non-fibrous (Other)	None Detected
4610CL-R7-1C-Plaster 221803358-0003B	Rough Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018

**Project:** 18-3066-C70-AP-74 (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R7-2A-Texture 221803358-0004	Knockdown Textured Plaster	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-2A-Skim Coat 221803358-0004A	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R7-2A-Plaster 221803358-0004B	Knockdown Textured Plaster	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R7-2B-Texture 221803358-0005	Knockdown Textured Plaster	White/Beige Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-2B-Skim Coat 221803358-0005A	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R7-2B-Plaster 221803358-0005B	Knockdown Textured Plaster	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R7-2C-Texture 221803358-0006	Knockdown Textured Plaster	White Non-Fibrous Heterogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R7-2C-Skim Coat 221803358-0006A	Knockdown Textured Plaster	White Non-Fibrous Homogeneous		5% Ca Carbonate 15% Gypsum 80% Non-fibrous (Other)	None Detected
4610CL-R7-2C-Plaster 221803358-0006B	Knockdown Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



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**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
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**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018  
**Project:** 18-3066-C70-AP-74 (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R6-3A-Texture 1 221803358-0007	Spray Textured Plaster	Tan/Beige Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R6-3A-Texture 2 221803358-0007A	Spray Textured Plaster	White/Beige Non-Fibrous Heterogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R6-3A-Skim Coat 221803358-0007B	Spray Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R6-3A-Plaster 221803358-0007C	Spray Textured Plaster	Tan/Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R6-3B-Texture 221803358-0008	Spray Textured Plaster	White/Beige Non-Fibrous Heterogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R6-3B-Skim Coat 221803358-0008A	Spray Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R6-3B-Plaster 221803358-0008B	Spray Textured Plaster	Beige Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R6-3C-Texture 221803358-0009	Spray Textured Plaster	Tan/White Non-Fibrous Heterogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R6-3C-Skim Coat 221803358-0009A	Spray Textured Plaster	White Non-Fibrous Homogeneous		10% Ca Carbonate 15% Gypsum 75% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R6-3C-Plaster 221803358-0009B	Spray Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-SW-4A-Skim Coat 221803358-0010	Smooth Textured Plaster	Tan/White Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4610CL-SW-4A-Plaster 221803358-0010A	Smooth Textured Plaster	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-SW-4B-Skim Coat 221803358-0011	Smooth Textured Plaster	White/Variou Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4610CL-SW-4B-Plaster 221803358-0011A	Smooth Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-SW-4C-Skim Coat 221803358-0012	Smooth Textured Plaster	White/Variou Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4610CL-SW-4C-Plaster 221803358-0012A	Smooth Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-R4-5A-Skim Coat 221803358-0013	Textured Plaster	White/Green Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		None Detected
4610CL-R4-5A-Plaster 221803358-0013A	Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R4-5B-Skim Coat 221803358-0014	Textured Plaster	White/Green Non-Fibrous Heterogeneous		10% Ca Carbonate 15% Gypsum 75% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R4-5B-Plaster 221803358-0014A	Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-H-5C-Skim Coat 221803358-0015	Textured Plaster	White Non-Fibrous Heterogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-H-5C-Plaster 221803358-0015A	Textured Plaster	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R4-6A-Flooring 221803358-0016	Floor Tile	Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
4610CL-R4-6A-Mastic 221803358-0016A	Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R4-6B-Flooring 221803358-0017	Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R4-6B-Mastic 221803358-0017A	Floor Tile	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R3-7A-Skim Coat 221803358-0018	Textured Plaster	White/Variou Non-Fibrous Heterogeneous		10% Ca Carbonate 15% Gypsum 75% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R3-7A-Plaster 221803358-0018A	Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-R1-7B-Skim Coat 221803358-0019	Textured Plaster	White/Beige Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		
4610CL-R1-7B-Plaster er 221803358-0019A	Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-R1-7C-Skim Coat 221803358-0020	Textured Plaster	White Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		
4610CL-R1-7C-Plaster er 221803358-0020A	Textured Plaster	Tan/Beige Non-Fibrous Homogeneous	5% Ca Carbonate 95% Non-fibrous (Other)		None Detected
4610CL-R1-7Q-Skim Coat 221803358-0021	Textured Plaster	White Non-Fibrous Heterogeneous	10% Ca Carbonate 90% Non-fibrous (Other)		None Detected
4610CL-R1-7Q-Plaster ter 221803358-0021A	Textured Plaster	Tan Non-Fibrous Homogeneous	5% Ca Carbonate 95% Non-fibrous (Other)		None Detected
4610CL-R5-8A-Skim Coat 221803358-0022	Hand Textured Plaster	White Non-Fibrous Heterogeneous	Inseparable paint / coating layer included in analysis		
4610CL-R5-8A-Plaster ter 221803358-0022A	Hand Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R5-8B-Skim Coat 221803358-0023	Hand Textured Plaster	White Non-Fibrous Heterogeneous		10% Ca Carbonate 15% Gypsum 75% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R5-8B-Plaster 221803358-0023A	Hand Textured Plaster	Gray Fibrous Homogeneous	<1% Cellulose	5% Ca Carbonate 10% Gypsum 85% Non-fibrous (Other)	None Detected
4610CL-R5-8C-Skim Coat 221803358-0024	Hand Textured Plaster	White Non-Fibrous Heterogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-R5-8C-Plaster 221803358-0024A	Hand Textured Plaster	Tan Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-H-9A-Coating 221803358-0025	Flooring - 5, H	Gray Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
Gray, cementitious coating on top of vinyl flooring					
4610CL-H-9A-Flooring 221803358-0025A	Flooring - 5, H	Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
4610CL-H-9A-Mastic 221803358-0025B	Flooring - 5, H	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R5-9B-Coating 221803358-0026	Flooring - 5, H	Gray Non-Fibrous Homogeneous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected
4610CL-R5-9B-Flooring 221803358-0026A	Flooring - 5, H	Tan/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R5-9B-Mastic 221803358-0026B	Flooring - 5, H	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R1-10A-Mastic 221803358-0027	Flooring - 1	Yellow Non-Fibrous Homogeneous		25% Ca Carbonate 75% Non-fibrous (Other)	None Detected
4610CL-R1-10A-Backing 221803358-0027A	Flooring - 1	Gray/White Fibrous Homogeneous	60% Cellulose 10% Glass	15% Ca Carbonate 15% Non-fibrous (Other)	None Detected
4610CL-R1-10A-Leveler 221803358-0027B	Flooring - 1	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R1-10B-Mastic 221803358-0028	Flooring - 1	Yellow/Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R1-10B-Backing 221803358-0028A	Flooring - 1	Beige Fibrous Homogeneous	55% Cellulose 10% Glass	35% Non-fibrous (Other)	None Detected
4610CL-R1-10B-Leveler 221803358-0028B	Flooring - 1	Gray Non-Fibrous Homogeneous		10% Ca Carbonate 90% Non-fibrous (Other)	None Detected
4610CL-R6-11A-Flooring 221803358-0029	Flooring - 6	Brown/Beige Fibrous Homogeneous	20% Cellulose 5% Glass	10% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4610CL-R6-11A-Mastic 221803358-0029A	Flooring - 6	White Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R6-11B-Flooring 221803358-0030	Flooring - 6	Tan Non-Fibrous Homogeneous	25% Cellulose 5% Glass	70% Non-fibrous (Other)	None Detected

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## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-R6-11B-Ma stic 221803358-0030A	Flooring - 6	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-R7-12A 221803358-0031	Duct Wrap	Brown Fibrous Homogeneous		30% Non-fibrous (Other)	70% Chrysotile
4610CL-R4-12B 221803358-0032	Duct Wrap	Tan Fibrous Homogeneous	25% Cellulose	10% Non-fibrous (Other)	65% Chrysotile
4610CL-B-13A-Mud 221803358-0033	Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
Mud on top of paint					
4610CL-B-13A-Text ure 221803358-0033A	Textured Drywall	Tan/White Non-Fibrous Heterogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-B-13A-Dry wall 221803358-0033B	Textured Drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4610CL-B-13B-Text ure 221803358-0034	Textured Drywall	Tan/White Non-Fibrous Heterogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected
Inseparable paint / coating layer included in analysis					
4610CL-B-13B-Tape 221803358-0034A	Textured Drywall	Beige Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4610CL-B-13B-Joint Compound 221803358-0034B	Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018  
**Project:** 18-3066-C70-AP-74 (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-B-13B-Dry wall 221803358-0034C	Textured Drywall	Brown/White Fibrous Homogeneous	15% Cellulose	70% Gypsum 15% Non-fibrous (Other)	None Detected
4610CL-B-13C-Texture 221803358-0035	Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4610CL-B-13C-Tape 221803358-0035A	Textured Drywall	Yellow Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
4610CL-B-13C-Joint Compound 221803358-0035B	Textured Drywall	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
4610CL-B-13C-Dry wall 221803358-0035C	Textured Drywall	Beige Fibrous Homogeneous	15% Cellulose	65% Gypsum 20% Non-fibrous (Other)	None Detected
4610CL-B-14A-Paneling 221803358-0036	Panel/Mastic	Brown Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4610CL-B-14A-Mastic 221803358-0036A	Panel/Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-B-14B-Paneling 221803358-0037	Panel/Mastic	Brown Fibrous Homogeneous	98% Cellulose	2% Non-fibrous (Other)	None Detected
4610CL-B-14B-Mastic 221803358-0037A	Panel/Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-SW-15A-Flooring 221803358-0038	Linoleum	Beige Fibrous Homogeneous	25% Cellulose 10% Glass	65% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018  
**Project:** 18-3066-C70-AP-74 (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-SW-15A-M astic 221803358-0038A	Linoleum	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-SW-15B-FI looring 221803358-0039	Linoleum	Beige Fibrous Homogeneous	45% Cellulose 5% Glass	50% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached mastic					
4610CL-B-16A-Floo r Tile 221803358-0040	Peel & Stick Tile	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-B-16A-Mas tic 221803358-0040A	Peel & Stick Tile	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-B-16Q-Floo r Tile 221803358-0041	Peel & Stick Tile	Tan/Black Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-B-16Q-Mas tic 221803358-0041A	Peel & Stick Tile	Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-B-16B-Floo r Tile 221803358-0042	Peel & Stick Tile	Black/Clear Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Result includes a small amount of inseparable attached clear adhesive					
4610CL-EX-17A-Shi ngle 1 221803358-0043	Roofing - H	Brown/Black Fibrous Homogeneous	15% Glass	20% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4610CL-EX-17A-Ma stic 221803358-0043A	Roofing - H	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018  
**Project:** 18-3066-C70-AP-74 (CDOT)

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
4610CL-EX-17A-Shi ngle 2 221803358-0043B	Roofing - H	Brown/Black Fibrous Homogeneous	15% Glass	20% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4610CL-EX-17B-Shi ngle 1 221803358-0044	Roofing - H	White/Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
4610CL-EX-17B-Ma stic 221803358-0044A	Roofing - H	Black Non-Fibrous Homogeneous		94% Non-fibrous (Other)	6% Chrysotile
4610CL-EX-17B-Shi ngle 2 221803358-0044B	Roofing - H	Brown/Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
4610CL-EX-18A-Shi ngle 1 221803358-0045	Roofing - G	White/Black Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
4610CL-EX-18A-Shi ngle 2 221803358-0045A	Roofing - G	Tan/Black Non-Fibrous Homogeneous	8% Glass	92% Non-fibrous (Other)	None Detected
4610CL-EX-18B-Shi ngle 1 221803358-0046	Roofing - G	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected
4610CL-EX-18B-Shi ngle 2 221803358-0046A	Roofing - G	Black Fibrous Homogeneous	10% Glass	90% Non-fibrous (Other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



# EMSL Analytical, Inc.

1010 Yuma Street Denver, CO 80204  
Tel/Fax: (303) 740-5700 / (303) 741-1400  
<http://www.EMSL.com> / [denverlab@emsl.com](mailto:denverlab@emsl.com)

**EMSL Order:** 221803358  
**Customer ID:** ALLP62  
**Customer PO:**  
**Project ID:** CDOT

**Attention:** Logan Greenfield  
All-Phase Environmental Consultants, Inc  
721 West 9th Street  
Pueblo, CO 81003  
**Project:** 18-3066-C70-AP-74 (CDOT)

**Phone:** (719) 250-0036  
**Fax:** (719) 542-2807  
**Received Date:** 05/14/2018 9:40 AM  
**Analysis Date:** 05/17/2018 - 05/19/2018  
**Collected Date:** 05/10/2018

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

### Report Comments:

Sample Receipt Date: 05/14/2018      Sample Receipt Time: 9:40 AM  
Analysis Completed Date: 05/19/2018      Analysis Completed Time: 9:15 AM

### Analyst(s):

Gentry Catlett PLM (9)

Stuart Printz PLM (46)

Timothy Kleehammer PLM (54)

### Samples Reviewed and approved by:

Amanda Lang, Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from: 05/19/2018 09:33:27



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Chain of Custody**  
EMSL Order Number (Lab Use Only):

221803358

Denver, CO 80204  
PHONE: (303) 740-5700  
FAX (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 18-3066-C70-AP-74		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule \*\*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

<b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	<b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	<b>TEM- Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
<b>PLM - Bulk (reporting limit)</b> <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	<b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	<b>Soil/Rock/Vermiculite</b> <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		<b>Filter Pore Size (Air Samples):</b> <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm

Samplers Name: Logan Greenfield | Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4610CL-R7-1A	Rough textured Plaster	---	5-10-18
4610CL-R7-1B	↓	---	↓
4610CL-R7-1C	↓	---	↓
4610CL-R7-2A	Knockdown textured Plaster	---	↓
4610CL-R7-2B	↓	---	↓
4610CL-R7-2C	↓	---	↓
4610CL-R6-3A	Spray textured Plaster	---	↓
4610CL-R6-3B	↓	---	↓

Client Sample # (s): - Total # of Samples: 46

Relinquished (Client): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received (Lab): *[Signature]* Date: 5/14/18 Time: 9:40 am

Comments/Special Instructions: EMFE 795473647993 3/5



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**Asbestos Chain of Custody**  
EMSL Order Number (Lab Use Only):

Denver, CO 80204  
PHONE (303) 740-5700  
FAX (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4610CL-R6-3C	Spray textured Plaster	—	5-10-18
4610CL-SW-4A	Smooth textured Plaster	—	↓
4610CL-SW-4B	↓	—	
4610CL-SW-4C	↓	—	
4610CL-R4-5A	Textured Plaster	—	
4610CL-R4-5B	↓	—	
4610CL-H-5C	↓	—	
4610CL-R4-6A	Floor Tile	—	
4610CL-R4-6B	↓	—	
4610CL-R3-7A	Textured Plaster	—	
4610CL-R1-7B	↓	—	
4610CL-R1-7C	↓	—	
4610CL-R1-7D	↓	—	
4610CL-R5-8A	Hand textured Plaster	—	
4610CL-R5-8B	↓	—	
4610CL-R5-8C	↓	—	
4610CL-H-9A	Flooring - 5, H	—	
4610CL-R5-9B	↓	—	
4610CL-R1-10A	Flooring - 1	—	
4610CL-R1-10B	↓	—	
4610CL-R6-11A	Flooring - 6	—	
4610CL-R6-11B	↓	—	
4610CL-R7-12A	Duct Wrap	—	
4610CL-R4-12B	↓	—	
*Comments/Special Instructions:			



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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
4610CL-B-13A	Textured Drywall	—	5-10-18
4610CL-B-13B	↓	—	↓
4610CL-B-13C	↓	—	
4610CL-B-14A	Panel / Mastic	—	
4610CL-B-14B	↓	—	
4610CL-SW-15A	Linoleum	—	
4610CL-SW-15B	↓	—	
4610CL-B-16A	Peel & Stick Tile	—	
4610CL-B-16Q	↓	—	
4610CL-B-16B	↓	—	
4610CL-EX-17A	Roofing - H	—	
4610CL-EX-17B	↓	—	
4610CL-EX-18A	Roofing - G	—	
4610CL-EX-18B	↓	—	
/			

\*Comments/Special Instructions:

**D**

LABORATORY RESULTS &  
CHAIN OF CUSTODY -  
LEAD & TCLP





# EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>

[cinnaminsonleadlab@emsl.com](mailto:cinnaminsonleadlab@emsl.com)

EMSL Order: 201805189

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Richard Ralston**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO**

Phone: (719) 225-6953  
Fax: (719) 542-2807  
Received: 05/14/18 10:30 AM  
Collected: 5/10/2018

Project: **18-3066-C70-L-AP-74**

## Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
4610CL-1L Site: R7- Dark Blue	201805189-0001	5/10/2018	5/16/2018	0.2636 g	<0.0080 % wt
4610CL-2L Site: R7- White	201805189-0002	5/10/2018	5/16/2018	0.2514 g	<0.0080 % wt
4610CL-3L Site: R7- Brown	201805189-0003	5/10/2018	5/16/2018	0.2517 g	0.041 % wt
4610CL-4L Site: R7- Pink/Gold	201805189-0004	5/10/2018	5/16/2018	0.2672 g	<0.0080 % wt
4610CL-5L Site: R4- Mint Green	201805189-0005	5/10/2018	5/16/2018	0.2915 g	<0.0080 % wt
4610CL-6L Site: R1- Lime Green	201805189-0006	5/10/2018	5/16/2018	0.2729 g	<0.0080 % wt
4610CL-7L Site: R7- Salmon	201805189-0007	5/10/2018	5/16/2018	0.2764 g	<0.0080 % wt
4610CL-8L Site: R1- Green/Brown	201805189-0008	5/10/2018	5/16/2018	0.2616 g	<0.0080 % wt
4610CL-9L Site: R1/H- Door- White	201805189-0009	5/10/2018	5/16/2018	0.2544 g	0.024 % wt
4610CL-10L Site: Stairwell- Brown	201805189-0010	5/10/2018	5/16/2018	0.2629 g	<0.0080 % wt
4610CL-11L Site: Basement- Blk/Red/White	201805189-0011	5/10/2018	5/16/2018	0.2624 g	0.21 % wt
4610CL-12L Site: Exterior- Gray	201805189-0012	5/10/2018	5/16/2018	0.2679 g	1.8 % wt
4610CL-13L Site: Exterior- Tan	201805189-0013	5/10/2018	5/16/2018	0.2507 g	2.9 % wt
4610CL-14L Site: Garage- Tan	201805189-0014	5/10/2018	5/16/2018	0.2555 g	2.4 % wt

Phillip Worby, Lead Laboratory Manager  
or other approved signatory

\*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements unless specifically indicated otherwise. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 05/17/2018 10:17:43





EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

**LEAD (Pb) CHAIN OF CUSTODY**  
EMSL ORDER ID (Lab Use Only):

201805189

EMSL Analytical, Inc.  
200 Route 130 North

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675  
FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Location	Volume/Area	Date/Time Sampled
3 4610CL-3L	R7 - Brown	—	5-10-18
4 4610CL-4L	R7 - Pink/Gold	—	↓
5 4610CL-5L	R4 - Mint Green	—	
6 4610CL-6L	R1 - Lime Green	—	
7 4610CL-7L	R7 - Salmon	—	
8 4610CL-8L	R1 - Green/Brown	—	
9 4610CL-9L	R1/H - Door - White	—	
10 4610CL-10L	Stairwell - Brown	—	
11 4610CL-11L	Basement - Blk/Red/White	—	
12 4610CL-12L	Exterior - Gray	—	
13 4610CL-13L	Exterior - Tan	—	
14 4610CL-14L	Garage - Tan	—	

**Comments/Special Instructions:**

Bill To: All-Phase Environmental Consultants, Inc., 721 W. 9th Street, Pueblo, CO, 81003, US  
Attention: Rick Raiston Phone: 719-641-6936 Email: rick@allphaseenvironmental.com Purchase Order:



# EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>

[cinnaminsonleadlab@emsl.com](mailto:cinnaminsonleadlab@emsl.com)

EMSL Order:	201805469
CustomerID:	ALLP62
CustomerPO:	
ProjectID:	

Attn: **Richard Ralston**  
**All-Phase Environmental Consultants, Inc**  
**721 West 9th Street**  
**Pueblo, CO**

Phone: (719) 225-6953  
 Fax: (719) 542-2807  
 Received: 05/21/18 11:30 AM  
 Collected: 5/10/2018

Project: 18-3066- C70- T- AP- 74

## Test Report: Toxicity Characteristic Leachate Procedure (1311/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
4610CL-TCLP	201805469-0001	5/10/2018	5/23/2018	<0.40 mg/L
Site: Entire Structure				

Phillip Worby, Lead Laboratory Manager  
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

Initial report from 05/24/2018 10:31:11



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

### Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

201805469

Cinnaminson, NJ 08077  
PHONE: 1-800-220-3675  
FAX: (856) 786-5974

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 W. 9th Street		<i>Third Party Billing requires written authorization from third party</i>	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: US
Report To (Name): Richard Ralston		Telephone #: 719-545-0375	
Email Address: rick@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 18-3066-C70-T-AP-74		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: CO		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour   
  6 Hour   
  24 Hour   
  48 Hour   
  72 Hour   
  96 Hour   
  1 Week   
  2 Week

\*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide

Matrix	Method	Instrument	Reporting Limit	Check
Chips <input type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm <sup>2</sup> <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%	<input type="checkbox"/>
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter	<input type="checkbox"/>
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter	<input type="checkbox"/>
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter	<input type="checkbox"/>
Wipe*      ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> <small>*if no box checked, non-ASTM Wipe assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	1.0 µg/wipe	<input type="checkbox"/>
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input checked="" type="checkbox"/>
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)	<input type="checkbox"/>
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)	<input type="checkbox"/>
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)	<input type="checkbox"/>
Wastewater    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	<input type="checkbox"/>
Drinking Water    Unpreserved <input type="checkbox"/> Preserved with HNO <sub>3</sub> pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)	<input type="checkbox"/>
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	<input type="checkbox"/>
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	<input type="checkbox"/>
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter	<input type="checkbox"/>
Other:				<input type="checkbox"/>

Name of Sampler: Richard Ralston      Signature of Sampler: Ralston

Sample #	Location	Volume/Area	Date/Time Sampled
① 4610CL-TCLP	Entire Structure	—	5-10-18

Client Sample #s: -      Total # of Samples: 1

Relinquished (Client): [Signature] Date: 5-11-18 Time: 527

Received (Lab): [Signature] Date: 5/14/18 Time: 1030 EMSL

Comments: Bill To: All-Phase Environmental Consultants, Inc., 721 W. 9th Street, Pueblo, CO, 81003, US  
Attention: Rick Ralston Phone: 719-641-6936 Email: rick@allphaseenvironmental.com Purchase Order:  
per Logan hold samples pending results of chips 5/18/18-CK

per Logan please analyze TSP sample 5/21/18 - CK 1130am  
Page 1 of 1 pages

## 6b. Asbestos Abatement Project Design



**Foothills  
Environmental, Inc.**

Industrial Hygiene, Safety & Environmental Services

---

**(Version 1, 11/30/18)**

**ASBESTOS ABATEMENT  
PROJECT DESIGN**

**SINGLE FAMILY RESIDENCE ABATEMENT PROJECT**

**4610 CLAYTON STREET  
DENVER, COLORADO 80216**

**PREPARED FOR:**

**JKS Industries, LLC  
747 Sheridan Blvd., #9A  
Lakewood, Colorado 80214**

November 30, 2018

FEI Project Number: AS18207-13

Prepared By:

Nicolas D. Vasquez, CDPHE Cert #22566  
Foothills Environmental

Foothills Environmental, Inc.  
11099 W. 8<sup>th</sup> Ave.  
Lakewood, Colorado 80215  
Phone: 303-232-2660

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APPENDIX A – Drawings

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## 1.0 Scope of Work

### 1.1 Materials Identified for Removal

The General Abatement Contractor (GAC) will be performing the removal of asbestos containing material(s) as indicated in the table below. This information was gathered from the inspection report prepared by All-Phase Environmental Consultants (APEC) dated June 17, 2018. A copy of the Inspection and this Project Design will be available onsite during the course of the project. The total amount of actual asbestos containing material to be removed on this project is estimated to be greater than 160 sf/260 lf or the equivalent of a 55 gallon drum.

**The following ACM was identified for removal prior to demolition:**

Sample Name	Sample Location	Lab Results/ Asbestos Type	Detection Method(s)	Condition	Material Description	Material Location	NESHAP Classification	Estimated Quantity (Sq. ft.)
4610CL-R7-12A	ROOM 7	DUCT WRAP 70% CHRYSOTILE	PLM	Good	DUCT WRAP	REGISTERS IN ROOMS 7&4	RACM	25
4610CL-R4-12B	ROOM 4	DUCT WRAP 65% CHRYSOTILE	PLM	Good			RACM	

ND=Non-Defect  
PLM=Polarized Light Microscopy  
NA=Not Applicable  
RACM=Regulated Asbestos Containing Materials

Regulatory asbestos abatement notification and permit from the Colorado Department of Public Health and Environment (CDPHE) will be required for this project.

### 1.2 Schedule

The following schedule has been proposed for the project. Phasing and dates are included in Section 1.3, Sequence of Work.

Project Start Date: December 26, 2018

Project Completion Date: January 8, 2019

### 1.3 Sequence of Work

The following phasing plan has been developed for the abatement. This plan was submitted with the permit application which corresponds to the drawing attached in Appendix A.

- **Phase 1** Start: December 26, 2018  
Finish: January 8, 2019

Abatement of vent wrap in all designated areas will be completed in two secondary containments.

## 1.4 Discussion of Removal Methods

All friable asbestos-containing vent wrap, as well as asbestos contaminated materials that are located in the work area shall be removed from their installed locations via facility component removal inside a secondary containment and by utilizing wet removal methods and a combination of handheld tools.

Waste generated during removal will be gathered wrapped with 6ml thick polyethylene sheeting while wet. Work will be accomplished using CDPHE certified supervisors and workers.

Work completion includes preparation of the work area, pre-clean activities, removal and disposal of all specified ACM from the premises, final cleaning of the work area, final visual inspection, lockdown, and final clearance monitoring. The project will be considered complete when all containments and work areas have passed clearance criteria.

The following types of containments will be used during the project followed by procedures for setup and dismantling:

### Secondary Containments

The GAC shall conduct abatement activities in accordance with CDPHE Regulation No. 8 in the following mandatory sequence for secondary containment:

- 1) Install critical barriers (pursuant to subsection III.I, Critical Barrier Installation)
- 2) Establish negative pressure (pursuant to Regulation No. 8 subsection III.J, Air Cleaning and Negative Pressure Requirements)

*Note: The removal of non-ACM building materials and components may only take place after negative air pressure is established in the containment work area(s).*

- 3) Construct the decontamination area (pursuant to subsection III.K, Decontamination Area)
- 4) Pre-clean surfaces (pursuant to subsection III.L, Pre-cleaning of Surfaces)
- 5) Cover fixed objects (pursuant to subsection III.M, Covering Fixed Objects)
- 6) Construct the containment (pursuant to subsection III.N.4, Secondary Containment)
- 7) Conduct abatement (pursuant to subsection III.V.2, Facility Component Removal)
- 8) Conduct final visual inspection (pursuant to paragraph III.P.1., Final Visual Inspection)
- 9) Conduct final clearance air monitoring (pursuant to paragraph III.P.3., Final Clearance Air Monitoring)
- 10) Conduct the tear-down (pursuant to subsection III.Q., Tear-down)

All waste from the project will be packaged in approved containers and transferred to an approved landfill for disposal. After successful air clearance of each containment the containment can be removed and all non-reusable containment materials will be packaged for disposal.

## **2.0 Special Conditions**

### **2.1 Regulatory Notification and Variances**

The General Abatement Contractor, (GAC) will make any required notifications to Federal and State entities regulating their work as required by applicable rules, regulations, and standards. This includes, but is not limited, to the National Emission Standards for Hazardous Air Pollutants (NESHAP) notification [notice provided to the Colorado Department of Public Health and Environment (CDPHE) with permit application]. *The abatement contractor is responsible for quantifying amounts of ACM necessary to properly complete the project.*

### **2.2 Project Manager Requirement**

Colorado Regulation No. 8 requires a Project Manager on all asbestos abatement projects in which the amount of friable ACM to be abated exceeds 1,000 linear feet on pipes, or 3,000 square feet on other surfaces. A Project Manager may be required for this project, unless a waiver is requested and granted by CDPHE.

### **2.3 Facility Occupancy Status**

During abatement activities the building will not be occupied by the former tenants but may be visited by owner personnel as well as other tradesmen.

### **2.4 Site Security**

Entry to the regulated asbestos work area is by permission only to authorized personnel. The perimeter of the work area may be monitored during abatement by a certified Air Monitoring Specialist (AMS). Only asbestos certified/licensed personnel employed by the GAC or federal or state regulatory agency personnel and the AMS will be allowed access to the work area. A logbook will be maintained at the entrance to the work area. Everyone who enters the work area must record name, affiliation, time in and time out for each entry.

### **2.5 Field Changes**

Minor modifications to the project design are allowed. Minor changes include but are not limited to, relocation of negative air machines, decontamination facility and waste load-out. Any modifications to the project design must be approved by the Project Designer before the changes are made.

## **3.0 Project Design**

### **3.1 Standards and Primacy of Rules**

The following standards will be adopted as they pertain to asbestos abatement. In any instance where adopted standards are in conflict with each other, the most stringent shall apply.

- 1) Colorado Department of Public Health and Environment Regulation #8
- 2) 5CCR 1000-10 Part B asbestos handling, transportation, and storage
- 3) 29 CFR 1926.1101, the OSHA Construction Industry Asbestos Standard
- 4) 40 CFR 61 Subpart M, EPA's NESHAP Asbestos Standard
- 5) NIOSH/OSHA/EPA –“Occupational; Safety & Health Guidance Manual for Hazardous Waste Site Activities”, Section 8-20; Heat Stress and Other Physiological Factors.

- 6) All other applicable laws, rules, and regulations, including but not limited to those relating to:
- 7 Workers' Compensation Insurance;
- 8 Liability Insurance
- 9 All contract specifications, drawings, and documentation

### **3.2 Site Access**

The GAC has access to the facility for the purpose of abatement from 6:30 AM to 5:00 PM until project completion which is projected to be 01/08/19.

### **3.3 Utilities Service**

Access to electrical power, water and sanitary sewer is not available inside the facility. The contractor will provide utility services during the duration of the project. Any temporary utility lines running to the regulated asbestos work area shall be adequately protected from damage and abrasion from vehicle and foot traffic. All waste water shall be filtered to five (5) microns prior to discharge into a sanitary sewer.

GAC will have to provide temporary restrooms located close to the project site at approved locations for the duration of the project (to be placed in a protected area if possible).

### **3.4 Decontamination Facilities & Load-Out Facilities**

Personnel decontamination facilities shall consist of an Equipment (Dirty) Room, Shower, and a clean room constructed in accordance with Regulation #8 III.K Decontamination Unit. If waste load out is by direct load out, it shall consist of a direct waste loadout configuration that is currently approved by CDPHE (Configuration diagram approved by CDPHE shall be attached to this Project Design if used).

All load-out and disposal procedures shall be in accordance with applicable federal, state, and local regulations and project specifications. The load-out will be separate from the decontamination unit and shall be used for temporary storage of waste. Construction shall consist of a minimum of two separate chambers separated by airlocks.

### **3.5 Pre-Cleaning Activities**

Pre-cleaning activities will be performed in accordance with CDPHE Regulation 8. All workers performing pre-cleaning must utilize HEPA equipped vacuums and wet methods. Any prepping activities that will contact non-friable ACM, or be within arms' reach of friable ACM must be accomplished by workers utilizing PPE.

### **3.6 Critical Barriers**

All critical barriers will consist of a minimum 1 layer of 6mil poly critical barrier on all, openings, and vents.

### **3.7 Negative Pressure Ventilation**

The GAC shall maintain a negative pressure differential of -0.02 inches of water in the work areas in accordance with Regulation #8 III.J Air cleaning and Negative Pressure Requirements, until final visual and clearance air monitoring complete. The calculations in the next section take into account at least 1 backup Negative Air Machine (NAM) with HEPA filtration. The

contractor will also be using generators for maintaining electrical supply. In the case of generator failure, all workers will leave the work area and seal the containment. A replacement generator will be available onsite or within an hour's time of the project for use in case of failure. Work will resume when negative pressure is restored. If negative pressure is not restored within an hour's time alternate means of electrical supply will be sought. If no supply is available, contractor will contact CDPHE and follow directions for spill response.

### 3.8 Air Exchange Calculations

#### AIR CHANGE CALCULATIONS *for a 2000 cfm negative air machine (NAM)*

$$AIR\ CHANGES = \frac{A}{B \times C}$$

Where: A = Work area volume in cubic feet (l x w x h)  
 B = 15 minutes  
 C = Estimated rated capacity of NAM (1,500 cfm)

#### Phase 1 –

##### Vent Wrap Facility Component Removal (Secondary Containment #1)

$$A = 8 \times 18 \times 9 = 1296 \text{ cubic feet}$$

$$B \times C = 22,500$$

$$\frac{1296}{22,500} = 0.06 \quad 1 \text{ NAM required}$$

##### Vent Wrap Facility Component Removal (Secondary Containment #2)

$$A = 8 \times 15 \times 9 = 1080 \text{ cubic feet}$$

$$B \times C = 22,500$$

$$\frac{1080}{22,500} = 0.05 \quad 1 \text{ NAM required}$$

### 3.9 Containment Construction

Containments for the asbestos removal shall be constructed in accordance with CDPHE Regulation 8 and this project design. Danger signs will be posted at ingress locations, and approaches to locations, where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the PEL. Signs will be posted at a distance sufficiently far from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace containment barriers.

Danger signs will include the following wording:

**DANGER  
 ASBESTOS  
 CANCER AND LUNG DISEASE HAZARD  
 AUTHORIZED PERSONNEL ONLY  
 RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA**

### **3.10 Set up of work areas**

#### **Containment Components**

2”x 4”s wood studding can be used as temporary framing to support any containment systems; this may include tie wires also where needed. 1 layer of 10 mil re-enforced poly sheeting will be utilized for any exterior critical barriers, negative air machines will be installed once the poly sheeting is installed. A full 3 stage decontamination unit equipped with hot and cold water, shampoo, disposable towels, and a 2 stage water filtration unit filter all water to 5 micron, prior to being discharged into the sanitary sewer system shall be used. View ports will be installed where appropriate with a minimum of 12” x 12” Plexi™ glass and or exterior windows.

Air flow testing utilizing smoke tubes will be performed to validate air flow direction and air exchanges.

### **3.11 Asbestos Removal**

Removal of materials containing asbestos and contaminated with asbestos shall be performed in accordance with the Colorado Department of Public Health and Environment Regulation 8 III, Abatement, Renovation and Demolition Projects and this project design.

### **3.12 Asbestos Spill Response**

In the event of a spill or a breach of the regulated work area containment, follow procedures in Section III.T. of Regulation No. 8, which includes cleaning the area outside the regulated work area. Visible debris shall be cleaned utilizing HEPA vacuuming and wet wiping plus an additional 10 horizontal feet beyond the visible debris. All filters, mop heads, and cloths utilized during clean-up activities shall be disposed of as asbestos contaminated waste in leak tight containers.

The GAC shall have available, equipment and supplies (HEPA filtered vacuum, airless sprayer with amended water, mops, rags, polyethylene sheeting, duct tape, caution tape...) for spill response in the event of accidental spill of materials containing asbestos.

In the event of an asbestos spill outside the work area containment the GAC shall:

- Make appropriate notices based on size of spill.
- Immediately wet the spilled material and surrounding area with the airless sprayer.
- Restrict access to the spill area and post warning signs to prevent entry to the area by persons other than those necessary to respond to the incident.
- Seal all openings between the contaminated and uncontaminated areas as directed by the asbestos consultant. This is to be accomplished by using polyethylene sheeting and tape.
- HEPA vacuum and wet clean all surfaces in the contaminated area.

Following completion of the above, the on sight Air Monitoring Specialist shall conduct a visual assessment of the spill area to confirm adequate cleaning has been accomplished by the GAC.

### **3.13 Asbestos Waste Transportation, Storage, and Disposal**

All ACM waste must be wrapped in two layers of 6 mil polyethylene sheeting or double-bagged in 6 mil polyethylene bags labeled with the appropriate OSHA label for asbestos and must also bear the generator label as required by EPA's 40 CFR 61 Subpart M NESHAP Standard. Containerizing and transport of asbestos wastes shall be in accordance with applicable federal and state regulations.

The existing installed building finishes, building systems, hardscaping, and landscaping shall be protected from damage by the GAC, until completion of all works.

Safety scaffolding, rubbish skips, access ladders etc. shall be approved by the client and in accordance with the current Health and Safety regulations.

GAC workers will not drag or drop packaged waste. All waste equipment and materials will be hand carried, or transported in wheeled carts to waste transport vehicles.

All packaged asbestos waste shall be directly loaded from the work area onto a 6mil polyethylene lined enclosed truck or dumpster container for disposal. No waste material may be temporarily stored in the building or the work area containment.

#### **Waste Disposal:**

All waste containers shall be transported from the permitted work areas to an approved disposal land fill by the GAC (Denver Aurora Disposal Site).

#### **Waste Transporter:**

By 5280 Waste Solutions.

### **3.14 Final Clean/ Final Visual Inspection Criteria**

All interior surfaces of the work area will be free of visible dust and debris. The work area must pass a final visual inspection by a CDPHE Certified Air Monitoring Specialist (AMS) leaving only critical barriers in place.

### **3.15 Final Air Clearance Monitoring**

Clearance criteria for this containment shall be in accordance with CDPHE Regulation #8, Section III.P

For each work area within the project where the amount of ACM is:	State-Permitted Project in Non-School Building	
	Minimum # of samples to clear each of the following:	
	Work Area	Project
Less than 3 square feet/3 linear feet	1	5
From 3 square feet/3 linear feet up to 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum	2	5
Greater than 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum up to 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5
Greater than 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5

Upon notification that clearance monitoring levels are acceptable, the GAC may remove critical barriers and demobilize from the work area. If any samples collected for the final air test exceeds (0.01 fibers per cubic centimeter, 0.01 f/cm<sup>3</sup> for PCM using the NIOSH Method 7400 or 70 structures per square millimeter (70 s/mm<sup>2</sup>) as analyzed by the TEM method in 40 C.F.R. Part 763 Appendix A to Subpart E (EPA 1995) the entire work area shall be re-cleaned immediately upon receipt of air test results.

Any failed abatement work area shall be re-tested and the costs associated for additional Final Clearance Air Monitoring shall be borne by the GAC at no additional cost to the Owner.

### 3.16 Personal Exposure Air Monitoring

The GAC shall be responsible for conducting personal exposure air-monitoring as applicable in accordance with OSHA 29 CFR 1926.1101 Asbestos Construction Standard. Contractor to supply results to personnel and will post results onsite.

### 3.17 Electrical Hazards Control

All electrical power utilized during the project will be on ground fault circuit interrupters (GFCI) whose power source is located outside the work area.

### 3.18 Emergency Egress and Fire Protection

The abatement contractor shall abide by the emergency egress rules for the facility. All contractor personnel shall receive emergency procedure orientation specific to the facility prior to initiation of abatement activities.

### 3.19 Fire Protection Plan

1. No items capable of initiating or sustaining combustion (lighters, matches, torches, etc.) will be allowed in containment.
2. The use of flammable liquids is not permitted.
3. Any electricity utilized must be on Ground Fault Circuit Interrupters (GFCI).

4. A minimum of one, 2A: 20B: C rated fire extinguishers will be maintained on-site. There must be available at least one 2A: 20B: C rated fire extinguisher within a maximum travel distance of 10 feet from any point in the work area.
5. Workers will be trained in the use of fire extinguishers, emergency egress plans, basic fire safety, and emergency reporting procedures prior to work beginning.
6. All emergency exits will be labeled as such with tools available for breaching poly and keys in door locks where necessary.
7. The Contractor must implement an emergency action and fire prevention plan in accordance with 29 CFR 1910.38 Employee emergency plans and fire prevention plans.

### **3.20 Fall Protection**

The GAC shall provide proper fall protection and training for their employees when working above 6 feet of height in accordance with Occupational Safety and Health Administration 29 CFR Part 1926 Subpart M Fall Protection.

### **3.21 Respiratory Protection / PPE**

The GAC shall provide proper respiratory protection for their employees with NIOSH approved HEPA filters during all pre-clean, abatement removal, waste load out procedures and during waste lift operations for effected employees. The GAC shall provide proof of medical fitness to wear respiratory protection and current fit testing documentation for all employees.

### **3.23 Work Area Protection**

The GAC shall repair or replace, to the Owner's satisfaction, any damage caused by the GAC or GAC subcontractors, to existing finishes, landscaping, or other building components.

### **3.24 Additional PPE**

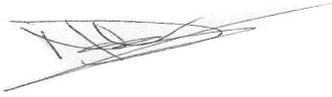
- Hooded Tyvek suits
- Safety Glasses with side shields (exception – not required when wearing a full face respirator).
- Leather Gloves
- Safety toe boots
- Fall Protection as required.
- PPE per MSDS / SDS requirements.

### **3.25 Pre-Abatement Document Submittal**

The GAC shall provide the following submittals to the Owner's Asbestos Competent Person / Safety Department for approval prior to site mobilization.

- ✓ Copies of all worker AHERA / STATE certifications.
- ✓ Copies of all worker asbestos medical evaluations.
- ✓ Copies of all worker respirator fit tests.
- ✓ Copies of MSDS for all chemicals (spray-glue, encapsulant, surfactant etc.) that will be used
- ✓ Asbestos waste receipt / total.

Completed by:

A handwritten signature in black ink, appearing to read 'NDV', written over a horizontal line.

Nicolas D. Vasquez CDPHE Asbestos Project Designer Certificate # 22566

Foothills Environmental Asbestos Consulting Firm CDPHE Registration # 14925

# Appendix A

## Drawings



## Appendix B

### Certificates



Colorado Department  
of Public Health  
and Environment

## ASBESTOS CONSULTING FIRM

This certifies that

**Foothills Environmental, Inc.**

**Registration No.: ACF - 14925**

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos consulting activities as required under Regulation No 8, Part B, in the state of Colorado.

Issued: January 30, 2018

Expires: January 30, 2019

Authorized APCD Representative

SEAL



Colorado Department  
of Public Health  
and Environment

# ASBESTOS CERTIFICATION\*

This certifies that

**Nicolas Vasquez**

**Certification No.: 22566**

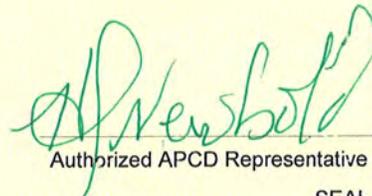
has met the requirements of 25-7-507, C.R.S. and Air Quality Control  
Commission Regulation No. 8, Part B, and is hereby certified by the  
state of Colorado in the following discipline:

**Project Designer\***

**Issued: February 08, 2018**

**Expires: February 08, 2019**

*\* This certificate is valid only with the possession of a  
current Division-approved training course certification  
in the discipline specified above.*

  
Authorized APCD Representative

SEAL



CHC Training  
Nationwide Training & Certification Experts  
www.trainingchc.com  
303.412.6360  
(855) 60.CERTIFY

1775 West 55th Avenue  
Denver, CO 80221,  
United States of America

# CERTIFICATE OF ACHIEVEMENT

This certificate is awarded to:

## NICOLAS VASQUEZ

In recognition of satisfactory completion of the EPA-approved annual asbestos refresher training course under section 206 of the Toxic Substance Control Act (TSCA) and Colorado Regulation No. 8 entitled

### PROJECT DESIGNER

COURSE DATE:

DECEMBER 21, 2017

EXPIRATION DATE:

DECEMBER 21, 2018

COURSE HOURS:

8.0

Verify Credential



*Danaya N. Benedetto*  
Co-Founder & CEO  
Training Program Manager

Credential License ID: 11084750



*Frank Hulce*  
Instructor

CHC Training Certificate No.  
R17-2200-APD-CO

Visit our Website



## 6c. Pre-Demolition Engineering Survey



Pre-Demolition Survey  
And General Demolition Plan  
For  
**4610 Clayton Street**  
**Denver, CO 80216**



Engineers: David A. Poe, P.E., S.E.  
Glen L. Wilson, E.I.

June 28, 2018  
Project No: 180113

June 28, 2018

Stephen P. Di Nardo  
JKS Industries, LLC  
747 Sheridan Blvd #9A  
Lakewood, CO 80214

Re: 4610 Clayton Street, Denver, CO 80216  
Pre-Demolition Engineering Survey per OSHA 1926.850(a)  
And General Demolition Plan

Date of Observation: 06/26/18

Dear Mr. Di Nardo:

At the request of JKS Industries (JKS), a representative from Anchor Engineering, Inc. (AEI) performed a site observation at the above-referenced structure on Tuesday, June 26, 2018.

For the purpose of this report, there are two buildings on the property. The front elevation of the residence faces west and is parallel to Clayton Street. There is a detached garage at the southeast corner of the property adjacent to the alley. At the time of our visit the buildings were vacant.

The purpose of our site visit was twofold:

1. To give an assessment of the current condition of the structure as it relates to structurally related hazards before the proposed demolition activities. OSHA 1926.850 is stated below, along with project specific applicability to the subject building.

- a. **OSHA 1926.850(a):** *Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a competent person, of the structure to determine the condition of the framing, floors, and walls, and possibility of unplanned collapse of any portion of the structure. Any adjacent structure where employees may be exposed shall also be similarly checked. The employer shall have in writing evidence that such a survey has been performed.*

**Project Specific Applicability:** The information contained in this report satisfies the requirement of this guideline. The subcontractor shall review this report and make a copy available to all employees on the project at the pre-project meeting, and it shall also be included in the job site books.

- b. **OSHA 1926.85(b):** *When employees are required to work within a structure to be demolished which has been damaged by fire, flood, explosion, or other cause, the walls or floor shall be shored or braced.*

**Project Specific Applicability:** 4610 Clayton Street, Denver, CO 80216 has not been damaged by any fire, flood, explosion, or any other event. Therefore, no shoring or bracing is required.

- c. **OSHA 1926.850(c):** *All electric, gas, water, steam, sewer, and other service lines shall be shut off, capped, or otherwise controlled, outside the building line before demolition work is started. In each case, any utility company which is involved shall be notified in advance.*

**Project Specific Applicability:** The contractor and subcontractor will ensure all electric, gas, water, steam, sewer, and other services are to be cut off prior to any work being performed. Contractor shall confirm with KMP through the pre-demolition check list and present the necessary information in the pre-demolition meetings.

- d. **OSHA 1926.850(d)**: *If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary, and protected.*

**Project Specific Applicability**: The demolition of 4610 Clayton Street, Denver, CO 80216 does not require any power, water or other utilities.

- e. **OSHA 1926.850(e)**: *It shall also be determined if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated before demolition is started.*

**Project Specific Applicability**: All types of hazardous chemicals, gases, explosives, flammable materials, or other dangerous substances shall be removed from the structure prior to demolition as part of the pre cleaning phase during the environmental remediation. All materials are to be documented, manifested, and included in the environmental close out documents.

- f. **OSHA 1926.850(f)**: *Where a hazard exists from fragmentation of glass, such hazards shall be removed.*

**Project Specific Applicability**: All hazards from fragmentation of glass shall be removed in the normal course of demolition.

- g. **OSHA 1926.850(g)**: *Where a hazard exists to employees falling through wall openings, the opening shall be protected to a height of approximately 42 inches.*

**Project Specific Applicability**: No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- h. **OSHA 1926.850(h)**: *When debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Signs, warning of the hazard of falling materials, shall be posted at each level. Removal shall not be permitted in this lower area until debris handling ceases above.*

**Project Specific Applicability**: No employees are permitted to enter the structure once demolition begins. Rule applies to interior demolition.

- i. **OSHA 1926.850(i)**: *All floor openings, not used as material drops, shall be covered over with material substantial enough to support the weight of any load which may be imposed. Such material shall be properly secured to prevent its accidental movement.*

**Project Specific Applicability**: The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

**OSHA 1926.850(j)**: *Except for the cutting of holes in floors for chutes, holes through which to drop materials, preparation of storage space, and similar necessary preparatory work, the demolition of exterior walls and floor construction shall begin at the top of the structure and proceed downward. Each story of exterior wall and floor construction shall be removed and dropped into the storage space before commencing the removal of exterior walls and floors in the story next below.*

**Project Specific Applicability**: The building is a single story structure. Refer to the demolition sequencing section of this report for further information.

- j. **1926.850(k):** *Employee entrances to multistory structures being demolished shall be completely protected by sidewalk sheds or canopies, or both, providing protection from the face of the building for a minimum of 8 feet. All such canopies shall be at least 2 feet wider than the building entrances or openings (1 foot wider on each side thereof), and shall be capable of sustaining a load of 150 pounds per square foot.*

**Project Specific Applicability:** Not applicable. Building is a single story structure. No employees are permitted to enter the structure once demolition begins.

2. Provide a general outline of the demolition procedures and sequence that is proposed to be used in the demolition of the subject structure. These outlined procedures/sequences are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations.

No architectural or structural drawings were provided for our review.

The residence is a single-story residential structure and is assumed to be founded on a spread footings. The structure has a full basement with concrete foundation walls and an assumed concrete slab on grade floor. The residence is approximately 25'-6" x 25'-6". The wall and roof framing is assumed to be composed of dimension lumber framing. The detached garage is approximately 12' x 20' with the long direction oriented north to south. It is a wood-framed structure on a concrete foundation with a slab on grade floor.

### **Existing Condition Observation**

During our site visit we made visual observations around the building perimeters only. The structures were partially exposed in some areas. All of the existing structural systems that were exposed to view appeared to be in good condition. We saw no evidence of noteworthy structural distress. It is our professional opinion that the possibility of un-planned collapse of any portion of the existing structures is very low. Workers may be allowed in the buildings to prepare them for demolition with such activities as removal of materials or other work that does not involve activities that affect existing structural systems.

### **Outline of Proposed Demolition Procedures, Equipment, and Sequence**

#### **Equipment**

We anticipate demolition for this structure to be completed with heavy equipment including:

- "Track-hoe" excavators capable of reaching structural elements to be demolished. Excavators may be equipped at times with buckets/grapples, hydraulically actuated demolition hammers or shears, and other custom extensions for demolition and/or holding elements for temporary stability.
- Small skid steer loaders may also be utilized from time to time during demolition

#### **Demolition Sequencing**

##### **General**

After the commencement of demolition with heavy equipment, by necessity, structural systems from this point forth will be destroyed. Demolition should proceed as fast as practical until the structure is demolished in its entirety. The lateral stability of the buildings are provided by the perimeter wood-framed walls.

During demolition operations, care must be taken to protect and prevent damage to any active or live utilities both above and below ground.

During demolition, water will be used to wet down the area that is being demolished prior to starting the demolition. During the demolition process a water spray will be used to minimize the fugitive particulate matter emissions. The ground will be sprayed with water either by water truck or some type of water spray to minimize fugitive particulate emissions from haul trucks and demolition equipment.

**Sequence**

The residence superstructure may be collapsed into the basement starting at either the north or south sides of the building and proceeding thru the length of the building in the north/south direction. Do not drive equipment onto the footprint of the building until the structure has been collapsed. The detached garage shall be demolished starting from the north side and proceeding to the south. The alley will require temporary closure during demolition procedures to prevent public endangerment. The south and east sides of the garage are in close proximity to the south and east property lines. The property located to the south is also scheduled for demolition. Once the roof, wall, and floor systems are demolished, the slab on grade and foundations can be removed in any sequence.

**Closing**

This report constitutes an engineering review and summary of the pre-demolition condition of the structural systems of the subject buildings as well as a general outline of demolition procedures and sequencing. Note that the conclusions drawn are based on visual observations and our expertise and experience with structural engineering of building structures. Unless noted otherwise, no non-destructive or destructive testing of any kind was performed, nor was any formal engineering analysis completed. These procedures/sequences outlined herein are subject to change by AEI and/or the demolition contractor based on the observed response of the structure overall and components thereof during actual demolition operations. Anchor Engineering, Inc. shall be held harmless for damage of any kind to surrounding structures or property or for injury of any kind to any person or persons. The demolition contractor is responsible for jobsite safety. The conclusions presented in this report are based on conditions noted at the time of the observation. Commentary or recommendations regarding environmental issues are beyond the scope of this report. Should questions arise, or if further information is required regarding the content of this report, please contact our office.

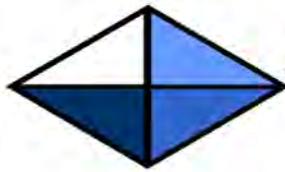
Sincerely,  
Anchor Engineering, Inc.



Glen L. Wilson, E.I.  
Design Engineer

Reviewed By:   
  
David A. Poe, P.E., S.E.  
Principal

## 7. Asbestos Clearance Report



# **ALL-PHASE**

## **ENVIRONMENTAL CONSULTANTS, INC.**

December 21, 2018

### **Interior Air Monitoring Clearance**

Re: AP-74  
4610 Clayton Street  
Denver, Colorado 80216

To Whom It May Concern:

On, December 19, 2018, Logan Greenfield, Colorado Certified Asbestos Building Inspector and Colorado Air Monitoring Specialist with All-Phase Environmental Consultants, Inc. (APEC), conducted Air Monitoring clearances at the above referenced Subject Property. A visual inspection and air samples were collected inside the abatement containment to ensure that the asbestos fiber counts are below the regulated standard to guarantee this area is safe to re-occupy.

The Containment Air clearance consisted of five (5) 0.08um sampling cassettes, five (5) 1-16 liter per minute pumps, along with Two (2) 20-inch box fans and a one-horse power leave blower used to perform an aggressive clearance of the containment. ***All-Phase Environmental is an approved and certified Colorado Department of Public Health and Environment asbestos laboratory.***

***Microscopic inspection of the above mentioned five samples were conducted in the All Phase Environmental PCM laboratory. This inspection verified that ALL the samples taken were at or below 0.01 fiber per cubic centimeter as required by the Colorado Department of Public Health and Environmental standard for a safe room or area. See Lab analytical results attached to this document.***

**Based on the visual inspection and the analytical results, this area is considered safe to re-occupy.**

APEC will not be held responsible for the mishandling of the information contained herein, and/or any items found after December 19, 2018.

Please feel free to call with any questions and or concerns.

Sincerely,

Logan Greenfield  
Colorado Certified Asbestos Inspector and AMS - 20715





Colorado Department  
of Public Health  
and Environment

## ASBESTOS LABORATORY

This certifies that

**All Phase Environmental Consultants, Inc.**

**Registration No.: AL - 24462**

has met the registration requirements of 25-7-507, C.R.S. and the Air Quality Control Commission Regulation No. 8, Part B, and is hereby authorized to perform asbestos laboratory testing activities, as required by Regulation No 8, Part B, in the state of Colorado.

Issued: April 20, 2018

Expires: April 20, 2019

Authorized APCD Representative

SEAL

## 8. Materials Summary

February 11, 2019

Megan Wood  
 Kiewit Infrastructure Co.  
 160 Inverness Drive West, Suite 110  
 Englewood, CO 80112

RE: AP-74 4610 Clayton St. – Summary of Removed Materials

Dear Megan,

Below is a summary of the materials removed from 4610 Clayton St. For more details regarding the location of the Asbestos Containing Materials (ACM) and the asbestos content please refer to the Table 3-1A of the All-Phase Environmental SSAR (Page 14).

<b>Material Removed</b>	<b>Quantity</b>
Asbestos Containing Paper Duct Wrap	25 SF
Clean Demolition Debris	428,400 lbs

If you have any questions or require further information regarding these quantities, please contact me at 303-238-0207.

Sincerely,  
**JKS Industries, LLC**



Jeffrey Knight  
 President

## 9. Waste Manifests

## 9a. Asbestos Waste Manifests



# ASBESTOS NESHAP WASTE SHIPMENT RECORD

1. Generator ID Number <b>N / A</b>	2. Page 1 of	3. Emergency Response Phone 800-424-9300	4. Waste Tracking Number <b>2253288</b>
5. Generator's Name and Mailing Address <b>COLORADO DEPARTMENT OF TRANSPORTATION 747 SHERIDAN BLVD UNIT 9A LAKEWOOD CO 80214</b>		Generator's Project Address (if different than mailing address) <b>AP-74 4610 Clayton St. Denver CO 80216</b>	
Generator's Phone: <b>(303) 512-5909</b>			
6. Transporter 1: Complete Company Name and Address <b>5280 WASTE SOLUTION</b>			Transporter Phone
7. Transporter 2: Complete Company Name and Address			Transporter Phone
8. Designated Disposal Facility Name and Site Address <b>DENVER ARAPAHOE DISPOSAL 3500 S GUN CLUB RD AURORA CO 80018</b>			Facility's Phone: <b>(720) 876-2620</b>
9. Waste Shipping Name, Description, & Profile Number	10. Containers		11. Total Quantity
	No.	Type	12. Unit Wt./Vol.
1. RQ, NA 2212, Asbestos, 9,PG III <b>12677500</b>			<b>10</b> <b>NONE</b>
2.			
13. Regulatory Agency: <b>Colorado Department of Public Health and Environment 4300 Cherry Creek Drive South Denver, CO 80222-1530</b>		Emergency Notification: <b>CHEMTREC (800) 424-9300 24-hour Toll Free Number</b>	
14. Bill to & Account Number: <b>Customer Acct #: D 14925 Customer Name: JKS INDUSTRIES</b>			
15. Contractor/Generator Certification: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/ placarded, and are in all respects in proper condition for transportation and disposal according to applicable national and state governmental regulations. I hereby certify that the above described waste is not a hazardous waste as defined by federal, state or local regulations and does not contain regulated quantities of PCB's or radioactive materials.			
Generator's/Offorer's Printed/Typed Name <b>Nia Spontamp on behalf of COOT</b>		Signature 	Month Day Year <b>12 18 2018</b>
16. Transporter Acknowledgement of Receipt of Materials			
Transporter 1 Printed/Typed Name <b>JOE UNOFFRE</b>		Signature 	Month Day Year <b>12 20 18</b>
Transporter 2 Printed/Typed Name		Signature	Month Day Year
17. Special Handling Instructions Soil originating from the above site shall not be used as daily cover or sold as clean fill.			
18. Discrepancy Indication Space:			19. Ticket # <b>3282725</b>
Initials of Person noting discrepancy		Signature	Date
20. Management Method/Location Landfill _____ Monofill <b>6</b> Location:			
21. Designated Disposal Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 18			
Printed/Typed Name <b>Amay</b>		Signature 	Month Day Year <b>12 20 18</b>

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

## 10. Weight Tickets

# 10a. Daily Load Trackers and Associated Truck Tickets

Date: 1-4-19

Project: AP-74

Prepared By: Mario Hermosillo

Dump Site Ticket

Arrival Time	Departure Time	Load #	Truck #	Material Code	Description	Tons/Yards	Dump Site	Number
7:45	8:10	1	CH 575	trash	Demo debris	18 yds	DADS	
8:30	9:00	2	CH 376	trash	Demo debris	18 yds	DADS	
10:00	10:20	3	CH 575	trash	Demo debris	18 yds	DADS	
10:35	11:05	4	CH 376	trash	Demo debris	18 yds	DADS	
11:55	12:25	5	CH 575	trash	Demo debris	18 yds	DADS	
1:20	1:45	6	CH 376	trash	Demo debris	18 yds	DADS	
2:30	3:00	7	CH 575	trash	Demo debris	18 yds	DADS	
3:45	4:10	8	CH 376	trash	Demo debris	18 yds	DADS	
4:40	5:10	9	CH 575	trash	Demo debris	18 yds	DADS	
7:30	7:50	10	CH 333	TRASH	DEMO DEBRIS	18 YDS	DADS	
7:45	8:11	11	CH 575	TRASH	DEMO DEBRIS	18 YDS	DADS	
9:46	9:55	12	CH 333	TRASH	DEMO DEBRIS	18 YDS	DADS	
9:55	10:15	13	CH 545	TRASH	DEMO DEBRIS	18 YDS	DADS	
11:50	12:10	14	CH 333	TRASH	DEMO DEBRIS	18 YDS	DADS	
12:15	12:35	15	CH 575	TRASH	DEMO DEBRIS	18 YDS	DADS	
1:48	2:03	16	CH 333	TRASH	DEMO DEBRIS	18 YDS	DADS	
2:05	2:25	17	CH 575	TRASH	DEMO DEBRIS	18 YDS	DADS	

6/1/4/19  
6/1/5/1

Legend:  
Materials:  
R = Recycle  
T = Trash

Description:  
Concrete, Asphalt, Asbestos, Lumber,  
Construction Debris, Trash, Metals,

**CHACON'S**  
construction & transport



No 50890

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO: *JRS*

DISPATCHED BY:

DATE *01-04-19*

JOB DESCRIPTION:

TRUCK # *CH 575*

TANDEM  TRAILER

MATERIAL *Demo*

*1-70*

	LOADS	UNLOADS
JOB#	<i>1 load</i>	
LOAD AT <i>46th &amp; Clayton</i>	<i>1 load</i>	
	<i>1 load</i>	
	<i>1 load</i>	
	<i>1 load</i>	
UNLOAD AT <i>DADS</i>		<i>10</i>
RATE \$		
HOURLY <input checked="" type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME <i>7:30</i>		
STOP TIME <i>6:30</i>		
TOTAL HOURS <i>11 hrs</i>		
OWNER OF TRUCK:		

DRIVER'S NAME

AUTHORIZED SIGNATURE

Not due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

# CHACONS

construction & transport



No. 8586

2920 W. 73rd Ave.  
Westminster, CO 80030  
Fax 303-331-8259  
PH 720-357-1448

BILL TO: **J K S**

DISPATCHED BY:

DATE: **1/4/19**

JOB DESCRIPTION:

TRUCK # **CH376**

**I-70**

TANDEM  TRAILER

MATERIAL

**DEMO**

	LOADS	UNLOADS
JOB#	<b>1</b>	<b>AP 74</b>
LOAD AT	<b>2</b>	<b>11</b>
<b>4/6th &amp;</b>	<b>3</b>	<b>11</b>
<b>CLAYTON<sup>ST</sup></b>	<b>4</b>	<b>11</b>
UNLOAD AT		
<b>D.A.D.S</b>		<b>8</b>
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME <b>8:00am</b>		
STOP TIME <b>6:00</b>		
TOTAL HOURS		
<b>1.0</b>		

OWNER OF TRUCK:

DRIVER'S NAME  
**M.A.C.H.**

AUTHORIZED SIGNATURE  
**Juan L Barral**

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

# CHACON'S

construction & transport



No 50891

2920 W. 73rd Ave  
Westminster, CO 80030  
FAX 303-487-5731  
PH 720-357-1448

BILL TO: JKS

DISPATCHED BY:

DATE 01-05-19

JOB DESCRIPTION:

TRUCK # CH575

I-70

TANDEM  TRAILER

MATERIAL Demo

	LOADS	UNLOADS
JOB#	1 load	
LOAD AT	1 load	
46th	1 load	
clayton	1 load	
UNLOAD AT		8
D.R.D.S		
RATE \$		
HOURLY <input checked="" type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME 7:30		
STOP TIME 4:00		
TOTAL HOURS		
8.5		
OWNER OF TRUCK:		

DRIVER'S NAME

AUTHORIZED SIGNATURE

Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.

# CHACONS

construction & transport



No. 8096

2920 W. 73rd Ave.  
Westminster, CO 80030  
Fax 303-331-8259  
PH 720-357-1448

BILL TO: JKS const		
DISPATCHED BY: Chacons Const		
DATE: 1-5-19	JOB DESCRIPTION:	
TRUCK # CH 333		
TANDEM <input type="checkbox"/> TRAILER <input checked="" type="checkbox"/>		
MATERIAL Demo		
	LOADS	UNLOADS
JOB# 18603	loads <del>7</del>	
LOAD AT Clayton st	8:00 deds	Ap-74
	10:00 deds	Ap-74
I 70	12:00 deds	Ap-74
	2:00 deds	Ap-74
UNLOAD AT Dades pot		8
RATE \$		
HOURLY <input type="checkbox"/> TONMILE <input type="checkbox"/>		
START TIME 7:30		
STOP TIME 4:00		
TOTAL HOURS		
8:30	OWNER OF TRUCK:	
DRIVER'S NAME	AUTHORIZED SIGNATURE	
Justin Castillo		
<p>Net due 30 days from date of this statement. Past due accounts bear interest at 1.5% per month. In the event collection of this account becomes necessary, client agrees to pay all costs and reasonable attorney fees.</p>		

## 10b. Waste Weight Tickets



2470067

Denver Arapahoe Disposal  
3500 S Gun Club, PO Box 460397  
Aurora, CO, 80018  
Ph: (720) 876-2620

Original  
Ticket# 3289758

Customer Name JKSINDUSTRIESLLC JKS Industri Carrier JKS INDUSTRIES JKS INDUSTRIES  
Ticket Date 01/04/2019 Vehicle# 1 Volume  
Payment Type Credit Account Container  
Manual Ticket# Driver  
Hauling Ticket# Check#  
Route Billing # 0014925  
State Waste Code Gen EPA ID  
Manifest Grid  
Destination  
PO  
Profile ()  
Generator

Time	Scale	Operator	Inbound	Gross	2 lb*
In 01/04/2019 05:51:49	MANUAL WT	aramirez		Tare	1 lb*
Out 01/04/2019 05:51:49		aramirez		Net	1 lb
* Manual Weight				Tons	

Comments 32 loads 1/4/19 central 70 project = 544 yds

PLEASE MAKE SURE YOUR TICKET IS CORRECT BEFORE SIGNING.

Product	LD%	Qty	UDM	Rate	Fee	Amount	Origin
1 CDY-CONST DEBRIS - 100		544.00	Yards				

Total Fees  
Total Ticket

402WM-N

Driver's Signature









Date: 1-4-19

Ticket#: AP 74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: M.A.CVA

Date: 1-4-19

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS ✓ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

Date: 12-5-19

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: Justin Castello

Date: 1-4-19

Ticket#: AP 74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS / 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

12-5-19

Date: ~~12-5~~ \_\_\_\_\_ MK

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X \_\_\_\_\_ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

Date: 1-5-19

Ticket#: AP 74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X \_\_\_\_\_ 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: Joshua Carberry

Date: 12-5-19

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: \_\_\_\_\_

Date: 12-5-18

Ticket#: AP 74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: Justin Cassello

Date: 12-8-19

Ticket#: AP 74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER

Signature: \_\_\_\_\_

Date: 12-5-19

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: Joseph Castillo

Date: 12-5-19

Ticket#: AP-74

ACCT#:306-14925

JKS INDUSTRIES  
CENTRAL 70 PROJECT

CDY 18 YDS X 25 YDS HIGHSIDES \_\_\_\_\_

DISPOSAL SITE: DADS  
3500 S GUN CLUB RD  
AURORA CO 80018

DRIVER:

Signature: \_\_\_\_\_

## 11. Dump Diversion Summary

**JKS Industries**  
**AP-74: 4610 Clayton St.**

Descriptions		Dump Diversion / Recycle %								
Phase	Activity	Unit of Measure	# of Yards per Container	# of Containers	Total Number of Yards	Pounds Per Yard **	Total Lbs	Recycled Yes/No	Pounds of Recycle or Dump Diversion	% of Recycle or Dump Diversion
Abatement	Trash Rolloff	Cubic Yard	-	-	-	450.00	-			
Abatement	Asbestos Containers	Cubic Yard	-	-	-	500.00	-			
Demolition	Demolition Construction Debris	Cubic Yard	18	17	306.00	1,400.00	428,400			
Demolition	Concrete Debris	Cubic Yard	12	-	-	4,050.00	-	x	-	0.00%
Demolition	Trees	Cubic Yard	-	-	-	500.00	-	x	-	0.00%
Demolition	Steel	Lbs	-	-	-	-	-	x	-	0.00%
Demolition	Copper	Lbs					-	x	-	0.00%
				17	306.00		428,400		-	0.00%

STUDY NOTES

- 1 The source material used for the Volume to Weight conversions came from Waste Management web site.
- 2 Conversions ratio's have been modified based on estimated compaction.

## 12. Containment Entry/Exit Log

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: AP-74

Job #: 18-328

Date: 12-18-18

	NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1.	Martha Nahle				
2.	Dennis Mejia	9:15	10:45		
3.	Alex Martinez Coronel	9:15	11:15		
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					

wednesday  
mercates.

# JKS INDUSTRIES

## CONTAINMENT SIGN-IN & SIGN-OUT SHEET

Job Name: AP-74

Job #: 18-328

Date: 12-19-18

NAME	SIGN-IN	SIGN-OUT	SIGN-IN	SIGN-OUT
1. Martha Nahle				
2. Alma Havtner Coull	7:30	9:30		
3. Delsy Arellanos	7:30	9:30		
4. Dennis Mejia	7:30	9:30		
5. Iriam Islano	7:30	9:30		
6. Rufino Ramirez	7:30	9:30		
7. Kaura Duran	7:30	9:30		
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

## 13. Daily Logs

JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # 18-328  
 Date 12-17-16

Job Name: AP-74  
 Day 1st day Monday Month 1 Year 1

Report # 1  
 Year 1

Project Manager \_\_\_\_\_

Superintendent Matthe Noble

Work Performed Today	Weather: <u>28°</u>	
7:00 a.m. Crew showed up on time	Temp. Hi <u>42°</u> Low <u>35°</u>	
Sign on tablet and book	Safety Meeting <input checked="" type="checkbox"/>	
continue with safety meeting and sketch	Topic: <u>PPE - Hand tools</u>	
7:30 a.m. crew continue with the set up on AP-74	Work Force	Number
	Project Manager	
	Project Supervisor	<u>1</u>
	Operators	
	Laborers	<u>6</u>
	Tradesmen	
waiting on Results on AP 80	Other:	
Clean Bonox and check material list.	Other:	
9:00 a.m. move the rest of the material to the new jobsite	Other:	
12:00 p.m. go to lunch and come back 12:30	Materials Used	Quantity
12:30 set up secondaries and load out for the jobs	<u>N/A</u>	<u>N/A</u>
2:45. Move water tee and generator to the new place	Material Purchased/Delivered	
	<u>N/A</u>	

Problems - Delays, Safety Issues

N/A

Subcontractor Progress

N/A

Inspections

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite		
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		

JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # AP-74  
Date 12-18-18

Job Name: 18-328  
Day 2nd day Tuesday Month 1 Year 1

Report # 1  
Year 1

Project Manager \_\_\_\_\_

Superintendent Martha Nohh

<b>Work Performed Today</b>		Weather: <u>43°</u>	
<u>7:00 am Crew on time, sign on tablet and book, Safety meeting, tools list. and continue with stretch</u>		Temp. Hi <u>36°</u> Low <u>38°</u>	
		Safety Meeting <input checked="" type="checkbox"/>	
		Topic: <u>PPE</u>	
<u>7:35 am Continue with piping and Demos on 74. detach the duct tape around the vents</u>		Work Force	
		Number	
		Project Manager	
		Project Supervisor <u>1</u>	
		Operators	
		Laborers <u>3</u>	
		Tradesmen	
<u>7:40 Other crew, continue with the pre cleaned and piping on the AP-73</u>		Other:	
		Other:	
		Other:	
		Materials Used	
		Quantity	
<u>12:00 Go to lunch and come back at 12:30 p.m.</u>			
		<u>N/A</u>	
<u>12:30 continue with the clean Demos on 73 and finish with AP-74.</u>		<u>N/A</u>	
		Material Purchased/Delivered	
		<u>N/A</u>	

**Problems - Delays, Safety Issues**

N/A

**Subcontractor Progress**

N/A

**Inspections**

N/A

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
<b>Visitors (Incl. Subs, Clients, etc.)</b>				
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>		

JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # 18-328  
Date 12-19-18

Job Name: AP-74  
Day Friday ~~Wednesday~~

Month 1

Report # 1  
Year 1

Project Manager \_\_\_\_\_

Superintendent Matha Noble

Work Performed Today		Weather: <u>49°</u>		
7:00 a.m. Crew got on time like always ☺ Sign in on tablet and book Safety meeting and stretch		Temp. Hi <u>51°</u> Low <u>25°</u>		
		Safety Meeting <input checked="" type="checkbox"/>		
		Topic: <u>PPE</u>		
		Work Force	Number	
		Project Manager		
		Project Supervisor	<u>1</u>	
		Operators		
		Laborers	<u>3</u>	
		Tradesmen		
		Other:		
		Other:		
		Other:		
7:35 a.m. Get ready to go to AP 83 and wipe down and get everything ready for clearances and visual.				
9:30 AMS passed visual and get all his equipment ready for the AP-83				
		Materials Used	Quantity	
		<u>N/A</u>	<u>N/A</u>	
10:30 AMS passed a visual on AP 74 and started the process of setting up all his equipment.				
12:00 Go to lunch canebest at 12:30		Material Purchased/Delivered		
12:30 Got ready to tear down 74 and help Geo on AP-73 to bug out.		<u>N/A</u>		
<b>Problems - Delays, Safety Issues</b>				
<u>N/A</u>				
<b>Subcontractor Progress</b>				
<u>N/A</u>				
<b>Inspections</b>				
<u>Visual and clearances - passed</u>				
Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Visitors (Incl. Subs, Clients, etc.)		Time In/Time Out	Activity Onsite	
<u>N/A</u>		<u>N/A</u>	<u>N/A</u>	

JKS INDUSTRIES LLC DAILY PROJECT LOG

Job # AP-83  
Date 12-20-15

Job Name: \_\_\_\_\_  
Day 4th day Thursday Month 1

Report # \_\_\_\_\_  
Year 1

Project Manager \_\_\_\_\_

Superintendent Martha Wohle

<b>Work Performed Today</b>	Weather: <u>22°</u>
7:00 a.m. Crew shows up on time Sign on tablet and book had safety meeting and stretch.	Temp. Hi <u>35°</u> Low <u>22°</u> Safety Meeting <input checked="" type="checkbox"/> Topic: <u>PPE</u>
7:40 a.m. Got ready to tear down AP-83 and move all the material an equipment to the next floor	Work Force Number
	Project Manager
	Project Supervisor <u>1</u>
	Operators
	Laborers <u>3</u>
	Tradesmen
	Other:
	Other:
	Other:
10:00 a.m. Move to AP-79 to move all the material and equipment from Box to the box truck and clean up.	Materials Used Quantity
	<u>N/A</u> <u>N/A</u>
12:00 p.m. Go to lunch and come back to 12:30 p.m.	
12:20 p.m. Tear down AP-73 and move all the equipment and material to new jobsite	Material Purchased/Delivered
2:00 p.m. drain all the water down.	<u>N/A</u>

**Problems - Delays, Safety Issues**

N/A

**Subcontractor Progress**

N/A

**Inspections**

N/A

Equipment Rented Today	Rented From	Insp Chklist Complete?	Equipment	Hours
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

Visitors (Incl. Subs, Clients, etc)	Time In/Time Out	Activity Onsite
<u>N/A</u>	<u>N/A</u>	<u>N/A</u>





